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DEVELOPING INITIATIVE IN JUNIOR OFFICERS

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A thesis presented to the Faculty of the U.S. Army  
Command and General Staff College in partial  
fulfillment of the requirements for the  
degree

MASTER OF MILITARY ART AND SCIENCE

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13. ABSTRACT (Maximum 200 words) US Army doctrine demands leader initiative, defined as <i>taking action to best accomplish a mission without waiting for new orders or supervision</i> . This thesis explores how well the US Army develops junior officer initiative. A review of historical, doctrinal, cross-cultural, empirical, and military literature suggests that initiative is relatively stifled in US Army junior officers. While authors and researchers have suggested several factors that inhibit initiative, the most commonly cited factor has been an unforgiving command climate. This study develops a decision-making model of initiative, in which a leader will not display initiative if <u>any</u> of the five inhibiting factors occurs: failure to recognize a need to take action; failure to accept responsibility; inability to develop an alternative plan; lack of confidence in the alternative plan; or unacceptable personal risk. A survey conducted of a Combined Arms and Services Staff School Class revealed that, contrary to the predominant theme of the literature, junior officers believe that they often display initiative. Additionally, the findings suggest that factors related to personal responsibility, competence, and commitment, and not command climate, were most strongly associated with the failure to display initiative. Recommendations are provided for future research and for developing initiative in junior officers.			
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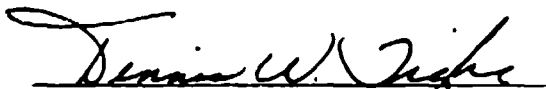
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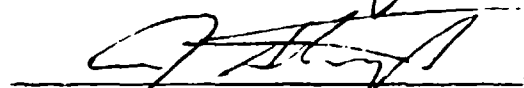
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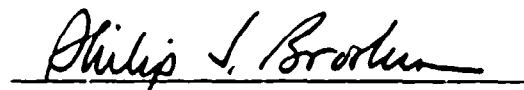
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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental Agency. (References to this study should include the forgoing statement.)

## ABSTRACT

DEVELOPING INITIATIVE IN JUNIOR OFFICERS by MAJ Kevin S. Donohue, USA,  
194 pages.

US Army doctrine demands leader initiative, defined as *taking action to best accomplish a mission without waiting for new orders or supervision*. This thesis explores how well the US Army develops junior officer initiative.

A review of historical, doctrinal, cross-cultural, empirical, and military literature suggests that initiative is relatively stifled in US Army junior officers. While authors and researchers have suggested several factors that inhibit initiative, the most commonly cited factor has been an unforgiving command climate.

This study develops a decision-making model of initiative, in which a leader will not display initiative if any of the five inhibiting factors occurs: failure to recognize a need to take action; failure to accept responsibility; inability to develop of an alternative plan; lack of confidence in the alternative plan; or unacceptable personal risk.

A survey conducted of a Combined Arms and Services Staff School Class revealed that, contrary to the predominant theme of the literature, junior officers believe that they often display initiative. Additionally, the findings suggest that factors related to personal responsibility, competence, and commitment, and not command climate, were most strongly associated with the failure to display initiative.

Recommendations are provided for future research utilizing the model and for developing initiative in junior officers.

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## CHAPTER 1

### INTRODUCTION

Does the US Army develop initiative in junior officers? This question has gained increasing currency and relevance in recent years since our Army made a bold doctrinal shift from the "Active Defense" to the "AirLand Battle." Many have voiced concern that far from developing initiative, the Army barely even tolerates it. Anyone familiar with the numerous military journal articles, monographs, and other professional writings on this subject will recognize a recurring theme: doctrine demands initiative, but the US Army's "corporate culture" suppresses it. In other words, the actual falls far short of the ideal.

How can this essay further illuminate this discussion or contribute to our field of knowledge? By seeking some objective standard of evidence before reaching a conclusion. A shortcoming of most written work on initiative is that the suppositions are rarely supported with evidence beyond a war story or anecdote. A study that combines new conceptualizations of initiative with empirical evidence for its conclusions will be novel.<sup>1</sup> Therefore, this thesis seeks to test the credibility of the popular opinions and hunches about initiative in the Army, most of which suggest that we do a very poor job of developing initiative.

Furthermore, many authors continue to write as if initiative is purely, or at least primarily, the product of command climate. A good deal has been written which addresses the senior leader's responsibility in encouraging and developing initiative in junior officers--but what responsibility does the junior officer have? This paper will also investigate the possibility that command climate is only one of many conditions that must be in place before a junior officer displays initiative.

In order to explore the latter possibility, it is important to differentiate between a "macro" (organizational culture) and a "micro" (individual decision-making) level of analysis. The macro view, which has been by far the more heavily traveled path in previous writings, seeks to understand initiative in terms of how much initiative the organization allows or tolerates. On the other hand, a micro level of analysis will allow us to investigate the leader's personal thought process, hence assessing to what degree leaders are willing and able to display initiative.

It is a central assumption of this thesis that for initiative to prosper, both the organization and the individual have responsibilities and limitations. When one asks if the Army develops initiative in junior leaders, the tacit assumptions are that the Army can, and the Army should. But what other questions are left unasked or unknown? This thesis seeks to question that simplistic paradigm, and delve into some of the complex issues surrounding the development of initiative:

1. What is initiative, and what must a junior leader do to display it?
2. When is initiative dysfunctional for junior officers and their organizations?
3. What causes initiative in junior officers?
4. What limits initiative in junior officers?
5. What can the US Army do to develop initiative?
6. What is the junior officer's responsibility in developing initiative?

Such questions do not lend themselves to simplistic, surface-level explanations and solutions. Hence, in order to succeed, this thesis must accept and wrestle with the complex nature of any process that involves human thought. Among other novel perspectives and approaches to the subject, this thesis will develop and utilize a new model of initiative. It is envisioned that this model, which will be developed and presented in detail in Chapter 3, may become a useful tool in helping Army leaders develop initiative.

There is a possibility that this exploration will only confirm that which is suspected: that the Army "culture" prohibits "adequate" levels of initiative (one of the most difficult objectives of this investigation will be to ascertain some acceptable, measurable standard for initiative). Proving the obvious is hardly an exciting prospect, but it is the risk an objective researcher assumes when seeking to discover new truth. On the other hand, by demanding evidence to support preconceived notions, and by triangulating initiative from more than one direction, this thesis might make the obvious dubious, and the hidden obvious.<sup>2</sup>

The purpose of this study, then, is not simply to integrate and summarize what others have already written. While a literature review is a useful starting point (and the focus of Chapter 2), it will serve only as a springboard for a more in-depth exploration of what initiative really means, how it is produced, and how well our Army is doing. Ultimately, this study will seek to go beyond analysis and explanation, and get to the bottom line--what, if anything, can and should we do differently? Again, the new model of initiative should help us focus our remedies on the components of initiative that require more attention.

Is such a study relevant? It is if one agrees with the enjoinder issued in 1989 by Lieutenant General (Retired) Walter Ulmer, Jr., the former III Corps Commander:

A leadership doctrine which supports AirLand Battle Doctrine--or any other warfighting approach dependent on individual initiative and decentralized decisionmaking--may be more difficult to put into place than the operational doctrine itself . . . . Many others including myself see routine decentralization efforts today being quietly undermined. Efforts to empower downward and encourage prudent risk-taking on the part of subordinates require almost Herculean energies if they are to prevail against the tide of hierarchical conservatism. If getting our leadership ducks in order--creating climates, expectations, and routines that will optimize our warfighting capabilities--is not the absolute first order of the day, I do not know what is.<sup>3</sup>

### The Definition of Initiative

One of the first problems encountered in any objective study is the definition of terms. Not surprisingly, there are many definitions of initiative available in both the literature and in our day-to-day life. In one recent study of initiative at the Combat Training Centers, when soldiers were asked to describe what was meant by the term "initiative," responses varied from doing their job without supervision to doing objectionable (displeasing) work.<sup>4</sup> Naturally, it is pointless to continue discussing initiative until a common reference point is established. As Major David Oberst notes in his monograph Three Kinds of Initiative: The Role of Initiative in AirLand Battle Doctrine: "Now that 'initiative' has been elevated to the status of a tenet of AirLand Battle, greater precision is required."<sup>5</sup>

In military writings, there are two fairly distinct uses for the term "initiative": one centers on battlefield dynamics, while the other focuses on individual behavior. Oberst's monograph discusses the origins, proponents, and merits of each of these definitions: initiative as an attribute of the attack, initiative meaning to exercise freedom of action, and initiative meaning to impose one's will on the enemy, causing him to react to your actions.<sup>6</sup> These definitions of initiative are compatible with the definition provided in Field Manual (FM) 100-5, Operations, in which initiative means *setting or changing the terms of battle by action*.<sup>7</sup>

In his work, Oberst also made a distinction between "initiative" and "individual initiative," concentrating on the former while noting that the latter is akin to *auftragstaktik*, the Prussian /German method of decentralized battlefield operations that depends upon the initiative of junior leaders.<sup>8</sup> While not using the same terminology as Oberst, FM 100-5, Operations, also helps differentiate between these two levels of initiative: "Applied to the force as a whole, initiative requires a constant effort to force the

enemy to conform to our operational purpose and tempo while retaining our own freedom of action. Applied to individual soldiers and leaders, it requires a willingness and ability to act independently within the framework of the higher commander's intent."<sup>9</sup>

Outside military circles, tactically and operationally oriented definitions of initiative rarely surface. The definitions are much closer to what might have been described in the previous discussion as "individual initiative." For clarity, this paper will differentiate between these concepts by referring to them as operational initiative and individual initiative. How are these two levels related? That is unclear, but since this paper will concentrate more on exploring the notion of individual initiative, an important assumption for establishing the tactical relevance of this thesis is that individual initiative contributes to operational initiative. This relationship will be explored and supported in the following chapter.

The range of definitions for initiative varies in many distinct dimensions, defying simple categorization. Webster's Dictionary provides several definitions of initiative, to include "at one's own discretion; independent of outside influence or control."<sup>10</sup> What about the outcome of the decision--should that be factored in? In Soviet military literature, a common interpretation of initiative is "making the correct decision,"<sup>11</sup> hence valuing a successful outcome over independence. Most definitions stay away from this "end justifies the means" approach.

In a recent Army Research Institute (ARI) study of soldier effectiveness, the researchers used the following behaviors as indicators of initiative: "volunteers for assignments; anticipates problems and takes action to prevent them; performs necessary extra tasks without orders."<sup>12</sup> Here is the willingness required by FM 100-5's definition, unfortunately, using this definition, it is difficult to separate initiative from willingness (motivation). Are these interchangeable concepts? Not if it is possible to have one without the other. Can a leader without initiative be motivated? Can a leader without

motivation have initiative? A more precise definition might help to clarify this relationship.

ARI researchers William P. Burke and Patricia Knight Davis used a slightly more proactive definition in their work on precommissioning training modules: "Active attempts to influence events to achieve goals; self-starting rather than passive acceptance. Taking action to achieve goals beyond those called for; originating action."<sup>13</sup> This definition is virtually identical to that used in the Reserve Officers Training Command (ROTC) Cadet Command definition of initiative as one of the 16 evaluated dimensions of leadership.<sup>14</sup>

Although these definitions are closer to the dictionary definition, the notion of not having permission or supervision from the superior is not explicitly addressed. Lieutenant Colonel Joel J. Snow has suggested that "the operative precept here is not only a willingness to act within the intent of the higher commander, but also *permission* to act."<sup>15</sup> This possible conflict is better addressed in Captain Lynn Kaufman's article on "Initiative in the U.S. Soldier," in which he defines initiative as the "ability and willingness to take decisive action without having to be directed by higher authority."<sup>16</sup> ARI researchers Alma G. Steinberg and Julia A. Leaman similarly define initiative as accomplishing the job without being told and/or without being supervised.<sup>17</sup>

Colonel (Retired) Mike Malone's definition of initiative in Small Unit Leadership: A Common Sense Approach is possibly the most comprehensive. In this book, Malone suggested initiative is demonstrated by the following actions:

- taking action in situations where something must be done, even in the absence of direction from a superior.
- looking for and figuring out better ways to do things.
- planning ahead.<sup>18</sup>

Malone's first component is similar to those already suggested by Webster's Dictionary, Kaufman, and Steinberg and Leaman. The second component suggests creativity, or what is commonly called innovation (which will be discussed later in this section). The third component may involve initiative, but is normally considered a separate competency. The notion of planning ahead is relatively more short-term and less dominating for junior leaders, and it is less likely that such planning would be done without some contact with a superior. Instead, this thesis will focus more narrowly on the shorter time horizon and high tempo, action-oriented initiative which current US doctrine demands.

A critical component of individual initiative suggested by FM 100-5 is independence within a framework of understanding how to accomplish the mission. What does our leadership doctrine say? Surprisingly, although discussed in the 1990 edition of FM 22-100, Military Leadership, initiative is never defined. However, the obsolete 1983 edition of this manual notes that "initiative is the ability to take actions that you believe 'll accomplish unit goals without waiting for orders or supervision."<sup>19</sup>

The problem with this definition is that it is not behaviorally oriented. In other words, it is intended only to suggest a disposition to display initiative, and does not require any action. The person may be able, but is he or she also willing? Going back to the earlier discussion of motivation and initiative, is it legitimately labeled "initiative" when a person has the ability to act, but chooses not to? (according to the authors of FM 22-100, behavior is not required, since initiative was treated as one of a number of desirable character traits.) This is a critical distinction in my operationalization of the definition; I am treating initiative as an observable behavior, not as a character trait.

After reviewing the definitions currently in circulation, and comparing them with my understanding of the intent of FM 100-5, I decided to propose yet another definition. I adopted several criteria and parameters for a suitable definition of initiative:

1. Depends on action (an observable behavior), and not simply a willingness or ability.
2. Implies both independence of thought and independence of control from higher.
3. Requires that the action is intended to accomplish the mission or better accomplish the mission.
4. Applies both in the presence of and the absence of either orders or commander's intent.
5. Allows the subordinate leader to display initiative without asking permission, but does not imply that this is a preferred action or that asking permission is not also an act of initiative.

In order to meet all these criteria, the definition I have adopted follows: *Initiative is taking action to best accomplish a mission without waiting for new orders or supervision.* I believe this definition remains completely faithful to both operational and individual initiative as described in FM 100-5; a leader who displays initiative as defined will retain freedom of action and has a greater likelihood of imposing his will on the enemy.

Initiative is not synonymous with innovation, although the two concepts may certainly overlap to some extent. Innovation is any new, creative way to solve a problem. While a leader certainly might show initiative by taking innovative action, he or she can also display initiative by taking completely unoriginal, unimaginative but competent action. It is particularly important to make this distinction because there is a great deal written in the civilian sector about innovation and creativity, and such literature may be tangential to the current pursuit. The subjects of creativity, originality, and innovation, interesting in their own right, are best left to become subjects for another thesis.



### The Importance of Initiative

When you see the correct course, act; do not wait for orders.<sup>20</sup>

--Sun-Tsu

While modern doctrine has amplified the need for initiative on the battlefield, its importance in the Clausewitzian "realm of uncertainty"<sup>21</sup> has always been recognized. The "traditional" perspective on the importance of initiative has been echoed by other great students of combat. Helmuth von Moltke the Elder, a major influence on the evolution of the Prusso-German Armies in the last century, noted that no plan survives first contact.<sup>22</sup> It was the German Army who first translated theory into action, developing an entire way of thinking [*auftragstaktik*] around Moltke and Clausewitz's cautions.<sup>23</sup>

Since W.W.II, technological advances made the necessity of initiative even more clear to our own Army. S.L.A. Marshall noted in Men against Fire: "As more and more impact has gone into the hitting power of weapons, necessitating ever-widening deployments in the forces of battle, the quality of initiative has become the most praised of military virtues."<sup>24</sup> To encourage subordinate leader initiative, some senior leaders advocated giving "mission-type" orders, which stress what to do, instead of how to do it. Envisioning post-WW II warfare, General Bruce Clarke suggested that such orders are vital on the nuclear battlefield.<sup>25</sup>

What might the future battlefield be like for a junior officer? Because of the increased need to avoid presenting a lucrative target for precise and lethal weapons, there will be greater dispersion between units and soldiers. Increased distances on this "cellular" battlefield, electronic jamming, and the threat of Electro-Magnetic Pulse (EMP) will cause reduced reliability of communications. Soldiers should expect to fight continuously with little rest, sometimes under physically demanding conditions such as Mission-Oriented Protective Posture (MOPP). Battlefield stress will be rampant. There will be an increased tempo of operations, reducing the length of decision-making windows. As Lieutenant

General Wilson Shoffner notes, battlefield dynamics are increasing both in amplitude and frequency.<sup>26</sup> Colonel Mike Malone has illustrated this battlefield in terms of a thousand leaders scattered across a thousand hills, each responsible for critical combat decisions.<sup>27</sup> To make matters worse, the leader, as always, is in personal danger. An NTC analysis of vehicle loss rates per mission indicate that the company commander's vehicle loss rate averages 55 percent.<sup>28</sup>

It was an analysis of this battlefield that led to the incorporation of initiative into the four tenets of AirLand Battle doctrine. Recognizing the changes to speed, distance, and time on the future battle, the 1987 Leader Development Study stressed the need for self-reliant leaders who can act without guidance.<sup>29</sup> But will the future battlefield make it more likely than ever before that junior officers will have to make rapid, independent decisions? A lot has changed in the past few years, and it is probably worth exploring these assumptions.

The picture painted above fits well on Germany's central plains, where our Army has focused since the end of World War II. But with the dissolution of the Warsaw Pact and the Soviet Union, is this "high intensity conflict" really what we should continue to focus on? Will initiative be just as important in low-intensity conflict, or even operations other than war, such as peacekeeping, non-combatant evacuations, and disaster relief? This is a new and relatively unexplored issue and, while it will not be the focus of this thesis, deserves at least an acknowledgment. In any military operation where political issues and controls tightly regulate the application of military force, it might simply be unrealistic to assume that the military will have the ability to permit unfettered initiative among its junior leaders. Furthermore, the omnipresence of the media in such operations may well further contribute to the pressure to do everything perfectly "for the cameras." In such endeavors, Rules of Engagement (ROE) might severely restrict a junior leader's actions, reducing or possibly even eliminating the opportunity to display initiative.

To carry this line of reasoning even further, we should note that most of our Army's time is spent in peace. What is the relationship between operations in wartime and peacetime? In peacetime, initiative is critically important for we should train as we fight. General John Foss recently noted:

If we have learned nothing else from the recent operations in Grenada and Panama, we have learned that soldiers fight exactly as they are trained in peacetime. We must command in peacetime as we command in war. We must place the same responsibilities upon subordinates in peacetime that we expect of them in combat.<sup>30</sup>

Where do we look for data to study initiative? We could analyze stories of real combat, citing historical anecdotes carefully selected to support the desired thesis.<sup>31</sup> Unfortunately, there are more than enough historical examples to support any given position on any issue. For this very reason, historical analysis, by itself, should not be considered capable of providing conclusions that meet the more rigorous standards of the scientific method.

The simulated battlefield is an interesting place to explore this phenomenon, and possibly the most relevant behaviorally-based data available on initiative are found in studies done at the Combat Training Centers. These studies will be considered in the next chapter. However, these studies are limited in scope and do not allow us to assess all the issues we will want to explore. Therefore, we will eventually have to rely on measures of perceptions of initiative, rather than direct measures of the behavior.

### The Limits of Initiative

Before going further, it is important to note that there are some situations in which encouraging initiative in junior leaders is inappropriate, and possibly fatal. If individual leader initiative works against accomplishment of the mission, then it has become dysfunctional. To again quote S.L.A. Marshall, "initiative is a desirable characteristic in a soldier only when its effect is concentric rather than eccentric . . . ." <sup>32</sup> In other words, the

subordinate leader's initiative must ultimately converge on the accomplishment of the mission. When it does not, it is dysfunctional to the organization. This possibility will eventually be worked into our model of initiative.

Let us not remember just the Joshua Lawrence Chamberlains and Creighton Abrams when we think of initiative on the battlefield. "One need only recall J.E.B. Stuart's liberal interpretation of his orders from Lee and his conspicuous absence from the battlefield at Gettysburg to realize that failure of such a command technique can occur even among the best of leaders."<sup>33</sup> More distressing still is the recollection of the "initiative" displayed by Captain Ernest Medina and Lieutenant William Calley in the subhamlet of My Lai 4 in March 1968. Through a perverse application of junior leader initiative, these officers were responsible for the murder of hundreds of civilians. There are times and situations in which a tighter rein may be necessary; this section will highlight some of these.

There are some relatively selfish, thoughtless and perhaps inexcusable reasons for withholding a subordinate leader's initiative. Jargon-like "zero defects" and "micromanagement" express these more pernicious inhibitors of initiative. These issues are not being dismissed here; they will be explored in greater detail in subsequent sections of this thesis. However, it is important that we recognize that there are some plausible and sensible reasons for more senior leaders to withhold some authority from junior leaders.

In the essay "Why Do Leaders Resist Implementing Power Down?" Lieutenant Colonel William Rollins and Captain Bob Evans speculated why leaders might resist decentralizing their authority and responsibility to lower-level leaders. The authors present seventeen reasons, many of which can be dismissed easily as unprofessional and careerist (threatens image of who is in charge, fear of career failure, higher leader does not support power down, etc.).

On the other hand, several more understandable reasons are presented, such as when junior leaders lack the information or awareness of the big picture, when the task is complex, or when the junior leader is inexperienced or incompetent.<sup>34</sup> The critical point that Rollins and Evans make, one that seems to have been missed by a majority of writers on this subject, is that there can be some healthy and sensible reasons for resisting decentralization and discouraging subordinate initiative.

Major John Vermillion also notes the managerial difficulties inherent any time decisions are decentralized, suggesting that if, and when, the US Army finds itself having to distribute scarce supplies and resources, this activity will "simply beg for centralized control."<sup>35</sup> In other literature, there is a recurring theme of three compelling reasons for maintaining a tight rein over the subordinate leaders: the operation plan is complex; the subordinate leaders are not properly trained; and there is an unacceptable risk for making a mistake. We will explore each of these in more detail.

The first concern, that of a complex operation with many moving parts, suggests some degree of contention between the AirLand Battle tenets of initiative and synchronization.<sup>36</sup> As Major John Nelson suggests, "decentralized decision-making is often seen as likely to undermine [a] well-oiled plan."<sup>37</sup> This is a complex issue, and it probably does not help much to point out that both concepts are somewhat relative. General John Foss attempted to resolve this by suggesting that when a particular operation (night operation, attack of a fortified position, etc.) requires more control, the leaders should use selective control for that particular operation, then revert to a more decentralized approach.<sup>38</sup> Despite the general notion that the German Army epitomized decentralized warfighting, Roger Beaumont has noted the German invocation of *Gesetz der Sache* (the law of the situation) when resorting to detailed supervision and planning for certain complex operations.<sup>39</sup>

In addition to the law of the situation, the issue of subordinate leaders untrained to effectively take advantage of a "loose rein" is certainly relevant. There is historical evidence to suggest that decentralized control becomes more costly and ineffective as a long war of attrition drags on, since highly experienced regular army leaders are replaced by more hastily trained reserve replacements.<sup>40</sup>

There may be times and missions when the cost of failure is so great to the organization that a chance cannot be taken by delegating decision-making authority to a less experienced subordinate leader (this is a common explanation given for micromanagement). A cost/benefit analysis of allowing the subordinate to deviate from a plan or procedure suggests relatively little would be gained, but much could be lost. For instance, in his essay entitled An Army of Excellence, Colonel Mike Malone notes that "there can be little 'freedom to vary' in the work of a nuclear warhead assembly team."<sup>41</sup>

Ironically, initiative can also be a "fig leaf"<sup>42</sup> for the incompetent commander. A commander can disguise his own lack of skills or understanding under the rubric of minimal guidance, such as through the use of mission-type orders. Lieutenant Colonel Walter von Lossow of the German Army noted that "the borderline can be very vague between conscious abstention from directing details and the inability to define clearly the objective and course of action and to delimit it with relevant constraints."<sup>43</sup> Major David Fastabend expressed a similar concern when he noted that US Army leaders frequently rationalize their tactical shortcomings by assuming that spontaneity is the order of the day, comforting one another with the consolation prize of the initiative they and their subordinates displayed after a simulated battle loss at the National Training Center.<sup>44</sup>

The insights provided by these limits inspired me to develop the decision-making model of initiative in Chapter 3. In this model, a series of conditions must be met before initiative is displayed.

It is very important that we carefully consider the possibility of dysfunctional initiative. While many authors have complained that our leaders show too little initiative, relatively few have addressed the possibility of a leader demonstrating "too much" initiative. Yes, initiative is clearly important, but it has limits, and it is not the only dynamic on the battlefield. As we prepare to immerse ourselves in the study of this phenomenon, we should take care not to lose a sense of perspective. Initiative is desirable only when, and if, it contributes to mission accomplishment. Initiative's mystique must not transcend its utility.

### The Analysis of Initiative

As should become readily apparent by this point, initiative is a complex issue, resistant to simplistic treatment. Clearly, initiative can be judged as neither good nor bad without some appreciation of the circumstances in which it is to be exercised. A goal of this paper will be to present a model that tackles the complexity of initiative and helps analyze how various conditions can be expected to affect initiative.

It is perhaps frustrating that there are currently no standard units of measurement for initiative (this is true of virtually all psychological constructs). The best we can hope for is to establish some type of reference point, and then to measure subsequent readings in comparison to this benchmark. Some previous studies have used various attitudinal and behavioral measures based upon their own definitions of initiative. These will be considered and compared in the literature review.

Although this thesis focuses on junior officers in today's US Army, it appears that previous investigators have made no attempt to focus their analysis and conclusions strictly on US Army lieutenants and captains. Although I will focus on this target population, it is artificial, and probably misleading, to attempt to draw conclusions about

junior officers from previous literature which may have included a more general population.

This caveat may be unnecessary; there is almost certainly a relationship between senior officer initiative and junior officer initiative. In fact, lack of initiative in junior leaders is often cited as both the cause and the effect of the lack of initiative in senior leaders. In a form of "Catch 22," if senior leaders do not habitually decentralize because they fear that their subordinates are not capable or willing to take responsibility, the junior leaders do not have the opportunity to gain confidence in independent judgment because they are not given the opportunity to exercise it. These junior leaders, modeling the behaviors of their superiors, eventually become senior leaders themselves, and the cycle starts again. B. H. Liddell Hart reflected on the irony of this self-perpetuating cycle when he wrote:

A different habit, with worse effect, was the way that ambitious officers, when they came in sight of promotion to the general's list, would decide that they would bottle up their thoughts and ideas, as a safety precaution, until they reached the top and could put these ideas into practice. Unfortunately, the usual result, after years of such self-repression for the sake of their ambition, was that when the bottle was eventually uncorked the contents had evaporated.<sup>45</sup>

In order to isolate and understand the many factors which can affect initiative, I will develop a model separating the various components of initiative and explaining their relationships to one another. This model will be derived from both the assumptions presented in this chapter and the literature review of the next chapter. While this model will be explained in greater detail in Chapter 3, a brief preview can help establish a framework for analysis.

Briefly, according to my model, in order for a rational leader to display initiative, a number of necessary conditions must all be in place; no single condition or subset of conditions are sufficient. These conditions are a combination of macro and micro factors. Furthermore, when initiative is simply a decision to do something, anything, different,



without regard for the cost and benefits involved, it is dysfunctional. MTC reports suggest that combat initiative contrary to commander's intent results in chaos.<sup>46</sup> If a leader acts without doing an analysis of the costs and benefits associated with the outcome of the decision, he or she is taking an unwarranted risk and possibly endangering the mission. Leaders must be able to, in Lieutenant General Gerald Bartlett's words, "[know] the difference between risk and gamble."<sup>47</sup> Hence, we recognize the potential for "dysfunctional initiative." For the sake of jargon minimization, we will label this outcome as "recklessness" in the model. Unfortunately, even reckless gamblers sometimes succeed, and far from chastising their impetuosity, we tend to lionize them. After all, how many people will agree with the correct probability analysis that a lottery jackpot winner made a poor gamble, and an unwise decision, in purchasing the winning ticket?

If someone can display poor judgment and still succeed, can someone display sound judgment and still fail? Of course. If we are to gain insight into initiative, we have to get beyond the "end justifies the means" mentality. Thus, it is possible for a subordinate to display proper initiative, yet still fail. This will force us to address the difficult and controversial issue of how to handle the "honest mistake."

In addition to functional initiative and recklessness, there is a third possible leader reaction: none at all. This lack of initiative will be referred to as "inertia," borrowing from physicist Sir Isaac Newton's discovery that a body at rest remains at rest or a body in motion remains in motion in a straight line unless disturbed by some external force.

In this chapter, we have established the basic framework for understanding and studying initiative, as well as the relevance of such a study. In the following chapter, we will review what others have written and concluded about initiative. Armed with this background information, this thesis will utilize an original model and new research to help us better understand what it means to develop initiative in junior officers.

## CHAPTER 2

### LITERATURE REVIEW

The purpose of this chapter is to review what has already been written about initiative, with particular emphasis on military literature. The basic themes, already previewed in the last chapter, will be examined in greater detail before I propose an original model of initiative in Chapter 3.

#### US Army Doctrinal Review

According to JCS Pub 1-02, Department of Defense Dictionary of Military and Associated Terms, doctrine is "fundamental principles by which the military forces guide their actions in support of objectives. It is authoritative, but requires judgment in application."<sup>1</sup> In order to inventory the Army's thoughts on the importance of developing initiative in junior leaders, it is necessary for us to delve into two related but separate categories of doctrine--operational doctrine and leadership doctrine. The purpose of this section will be to unequivocally establish the status of initiative as one of the "fundamental principles" of our Army's doctrine.

#### Operational Doctrine

While "initiative" has become one of the tenets of the US Army's operational doctrine, it is hardly a newly discovered virtue of military leadership. In fact, initiative has never been overtly discouraged by our doctrine. The relevant issue, then, should be the degree to which initiative is encouraged, in theory and in practice. In this doctrinal

review, we will focus on the former; in a later section entitled "Initiative in the US Army," we will shift our focus to the latter.

In 1914, Major General Leonard Wood wrote the following words in the preface to our Army's Field Service Regulations:

Officers and men of all ranks and grades are given a certain independence in the execution of tasks to which they are assigned and are expected to show initiative in meeting the different situations as they arise. Every individual, from the highest commander to the lowest private, must always remember that inaction and neglect of opportunities warrant more severe censure than an error in the choice of the means.<sup>2</sup>

The notion of initiative can also be discerned a war later, in the 1944 edition of FM 100-5, Operations:

Every individual from the highest commander to the lowest private must always remember that inaction and neglect of opportunities will warrant more severe censure than an error in judgment in the action taken. The criterion by which a commander judges the soundness of his own decision is whether it will further the intentions of the higher commander.<sup>3</sup>

When the US Army formally introduced AirLand Battle doctrine with publication of the 1962 edition of FM 100-5, initiative moved to center stage. This manual previewed our Army's most explicit doctrinal embrace of initiative yet, a concept that gained stature as it joined agility, depth, and synchronization as one of the four basic tenets of AirLand Battle. According to the 1986 edition of FM 100-5:

Initiative means setting or changing the terms of battle by action. It implies an offensive spirit in the conduct of all operations. Applied to the force as a whole, initiative requires a constant effort to force the enemy to conform to our operational purpose and tempo while retaining our own freedom of action. Applied to individual soldiers and leaders, it requires a willingness and ability to act independently within the framework of the higher commander's intent. In both senses, initiative requires audacity which may involve risk-taking and an atmosphere that supports it.<sup>4</sup>

In the same section, the manual stresses the importance of conducting a rational cost-benefit decision-making analysis before exercising initiative:

In the chaos of battle, it is essential to decentralize decision authority to the lowest practical level because over-centralization slows action and leads to inertia. At the same time, decentralization risks some loss of precision in execution. The commander must balance these competing risks, recognizing that loss of precision is usually preferable to inaction.<sup>5</sup>

The 1982 edition of the manual also noted the vital role of leadership climate when it noted that battlefield leaders "must deviate from the expected course of battle without hesitation when opportunities arise to expedite the overall mission of the higher force. They will take risks, and the command must support them."<sup>6</sup> I will show in the next section that the importance of climate, acknowledged in the operational doctrine, is given considerably more attention in the leadership doctrine.

Since the publication of the 1982 edition of FM 100-5, the importance of initiative has percolated down to the US Army's other doctrinal manuals.<sup>7</sup> As our Army's doctrinal espousal of initiative has been firmly established in comprehensive surveys by more than one School for Advanced Military Studies (SAMS) monograph author,<sup>8</sup> this paper will not attempt to repeat their efforts. The critical (and perhaps obvious) point to be drawn from this brief review of operational doctrine is that our Army demands initiative in our leaders.

An articulate statement of how we might doctrinally expect to operate is described in Colonel Mike Malone's 1983 monograph entitled An Army of Excellence:

An Army unit led by leaders, guided by mission type orders . . . an Army unit executing independent, innovative, aggressive action . . . an Army unit momentarily joined with other units, operating interdependently and in concert in the destruction of vital enemy targets, with their combined effort orchestrated by nothing more than a thorough knowledge of, and belief in, the intent of their higher commander . . . an Army unit, fighting the AirLand Battle and meeting its four most critical demands: initiative, depth, agility, and the synchronization of the application of combat power.<sup>9</sup>

## Leadership Doctrine

The US Army has published leadership doctrine for both senior-level (indirect) and junior-level (direct) leaders. The primary direct leadership doctrinal manual is FM 22-100, Military Leadership. References to initiative are obscure in this key manual. Unlike FM 100-5, FM 22-100 fails to clearly and effectively communicate the vital tenets of AirLand Battle, forcing the reader to flip among seven fundamental expectations of leadership, the four leadership requirements, the eleven principles of leadership, and the nine leadership competencies. Initiative does not make it on any of these lists; in fact, it is not even defined.

While not stressed, the importance of initiative can be inferred from some of the many frameworks found in FM 22-100. For instance, in a discussion of one of the eleven principles of leadership (seek responsibility and take responsibility for your actions), it is noted that "our operational doctrine requires bold leaders at all levels who exercise initiative, are resourceful, and take advantage of opportunities on the battlefield which will lead to victory."<sup>10</sup>

FM 22-100 also prescribes a clear emphasis on decentralization, a command and control measure that is closely associated with initiative. A discussion of the "Decision Making" leadership competency suggests that decisions should be decentralized to the lowest sufficient level.<sup>11</sup> This issue is elaborated upon in a discussion of decentralization, which is one of the four leadership requirements:

Leaders must create a leadership climate where decision-making is decentralized to the appropriate level. This climate is necessary for subordinate leaders to learn and then to demonstrate the mental flexibility, initiative, innovation, and risk-taking skills that our training and operations doctrine require.<sup>12</sup>

Curiously, initiative was regarded as a trait in the 1983 edition of FM 22-100.<sup>13</sup> Could it be, in an effort to purge the controversial notion<sup>14</sup> of leader character traits from the newest edition, that the emphasis on initiative was suppressed? This explanation is

doubtful, since even while avoiding the "trait" label, the 1990 FM 22-100 still suggests that initiative is an indicator of character.<sup>15</sup> Once again, a critical issue emerges: what is initiative? This paper answers this question (and perhaps avoids some of the murkier character and trait issues) by choosing to define initiative as an observable behavior.

Like operational doctrine, leadership doctrine is continuously under review and revision. In 1987, the Commander of Training and Doctrine Command (TRADOC) formed a special study group under the direction of Major General Gordon Sullivan at CGSC to assess and recommend improvements in the US Army's leader development. The report of the Leader Development Study was a watershed event in Army leadership and leader development doctrine, proposing many changes either which have taken or are taking effect. The Center for Army Leadership (CAL), directed to compare leadership doctrine with our warfighting needs, recommended that the nine competencies be augmented by initiative (as well as flexibility, motivation of others, trust in subordinates, boldness, climate-setting, direction, innovation, purpose, and risk-taking).<sup>16</sup>

While other leadership doctrinal manuals have acknowledged the importance of initiative, there has been relatively little elaboration on how initiative is developed. DA Pam 600-32, Leader Development for the Total Army, provides a general outline of the Army's leader development process and goals. This manual notes that the Army demands leaders who "show initiative, plan thoughtfully, and take reasoned, measured risks to exploit opportunities."<sup>17</sup> However, only a very general framework is prescribed as the method by which leaders can be developed to meet this and other demands.

FM 22-103, Leadership and Command at Senior Levels, also acknowledges the importance of initiative by stating that "senior leaders who are developers promote initiative and agility. They provide a framework that fosters the ability and willingness of subordinates to operate independently within the context of their intent."<sup>18</sup> Furthermore, the concepts of risk-taking and decentralization are both endorsed. While these concepts

are not synonymous with initiative, they are clearly related. The nature of this relationship will be hypothesized in the following chapter and tested in Chapter 4.

A general critique of the official literature reviewed in the previous sections might be that while it emphasizes the importance of initiative in the AirLand Battle leader, the doctrine lacks specific prescriptions for its implementation. However, such prescriptions are not ordinarily the province of doctrine. For a "How To" guide on the implementation of any doctrine, the Army often provides Tactics, Techniques and Procedures (TTP) manuals.

A prototypical leadership TTP manual was used at Fort Hood in 1983, where the III Corps Commander's Handbook (often known as the "Green Book") was a resource manual which assisted leaders in implementing a command philosophy which requires junior leaders to exercise initiative.<sup>19</sup> In 1986, the Center for Army Lessons Learned (CALL) published the Fort Hood Leadership Study, in which it these leadership initiatives were summarized for the rest of the Army.<sup>20</sup> The issue of specific recommendations for developing initiative will be the subject of the final chapter of this thesis.

This brief foray into doctrine is nothing more than a reminder of how the US Army officially says that it should be operating. Yet, espoused theories and values are ideals, rarely completely achieved in practice. Obviously, if we establish that we are somewhat short of these goals today, the real challenges are to get there. In separate articles, Lieutenant Colonel Faris Kirkland and Lieutenant Colonel John Cope compared leadership and operational doctrine, respectively, to practice. Both noted that senior leaders had to truly embrace decentralization and junior leader independence before our prescribed doctrine could work.<sup>21</sup> A personification of this peculiar dilemma might be observed in General William DePuy, one of the key figures in the development of AirLand Battle Doctrine. General DuPuy had great admiration for German doctrine, *auftragstaktik* in particular. Yet, as a division commander in Vietnam, DuPuy personally controlled unit

movements down to squad level.<sup>22</sup> This seeming contradiction will be explored in greater detail in the later section on initiative in the US Army.

### *Auftragstaktik* and the Prussian/German Legacy

In military literature, the concept of initiative is often assimilated into the concept of *auftragstaktik*, a German word that can be loosely translated as mission-oriented (or task-oriented) tactics. We can learn a great deal about the development of initiative by studying the experience of the German Army as it exercised this form of tactical control. *Auftragstaktik*, first inculcated into the Prussian, and later German, Army by von Moltke, was a critical element in the success of the Prussian and German armies for nearly a century.<sup>23</sup>

It is difficult to stress enough that *auftragstaktik* is a complex concept, the subject of many monographs and articles. It is not just to treat *auftragstaktik* as the equivalent of initiative, or of a leader's tool. As Major Bob Nelsen noted, *auftragstaktik* "is an all encompassing concept, holistically embracing elements of what today would be called the theory and nature of war, character and leadership attributes, tactics, command and control, senior-subordinate relationships, and training and education."<sup>24</sup> In fact, the Wehrmacht never used the word to describe its operations.<sup>25</sup>

Major Nelson further notes:

*Auftragstaktik* stresses the human dimension of war--a struggle of men against men in an imperfect and uncertain environment. It seeks to develop thinking, tough-minded, self-reliant, confident, and courageous leaders who can respond to friction, the fog of war, and unexpected enemy actions with initiative and grim determination--but with no guarantee of success. Such soldiers would develop a prudent, audacious, risk-taking attitude, habitually tackling tough problems in the noble effort to solve them.<sup>26</sup>

Brigadier Richard Simpkin cleverly contrasts the *auftragstaktik*, or mission-type order from a British or American order by noting that the Germans focus on Paragraph 2



(MISSION), not Paragraph 3 (EXECUTION) of an operations order.<sup>27</sup> In other words, tell the subordinates what to do, not how to do it. This may explain why in the Second World War, the Wehrmacht Army-level operations orders for major operations sometimes covered as little as a quarter of a single page, and rarely more than three or four pages.<sup>28</sup>

Although some have traced the roots of this German concept back to the Prussian Clausewitz's "friction,"<sup>29</sup> still others have suggested that the impetus for adopting *auftragstaktik* was the Hessian experience in fighting American irregulars in the American Revolution.<sup>30</sup> No matter which story we subscribe to, Helmuth von Moltke the Elder should probably be given credit as the father of *auftragstaktik*. Moltke, who always stressed that the first deadly sin is inaction,<sup>31</sup> also wrote that "a favorable situation will never be exploited if commanders wait for orders. The highest commander and the youngest soldier must always be conscious of the fact that omission and inactivity are worse than resorting to the wrong expedient."<sup>32</sup> (Moltke's writings appear to be the basis for Leonard Wood's previously cited comments in the opening pages of our 1914 Field Service Regulations.)

One of Moltke's favorite stories was a recounting of his observations of an inspection while visiting the headquarters of Prince Frederick Charles. The Prince chastised a major for a tactical blunder, to which the major replied that he was just following orders. He had always been taught that a superior officer's order was the same as an order from the King himself. The Prince replied: "His Majesty made you a major because he believed you would know when NOT to obey his orders" [emphasis in original].<sup>33</sup>

The concept of *auftragstaktik*, eventually incorporated into all German Drill Regulations and Field Service Regulations (*Truppenfuhrung*), certainly contributed to the swift Prussian successes in the latter half of the 19th century in the wars against Austria and France.<sup>34</sup> In the First World War, the inertia of static trench warfare, high attrition

rates of trained leaders, and the introduction of the field telephone<sup>35</sup> (which tempted senior officers to oversupervise their units) appear to have limited the opportunities for full exploitation of *auftragstaktik*.

As WW I dragged on indecisively, the Germans recognized a need for a different approach. In 1918, an implementing directive for new German infiltration (or *Hutier*) tactics stated that "every attack offers the opportunity for free activity and decisive action at all levels down to the individual soldier . . . everything depends on rapid, independent action by all headquarters within the framework of the whole."<sup>36</sup> These new tactics, which emphasized shock, firepower, and independent junior officer and non-commissioned officer (NCO) actions, enjoyed considerable success before the Allied war machine eventually drove the exhausted German nation to the peace table.

Despite the loss of the First World War, the German military core maintained the basic *auftragstaktik* approach to warfighting. Alfred C. Wedemeyer, an American Army officer assigned as an exchange student at the *Kriegsakademie* in 1938, noted the institutional requirement for low-level initiative and decision-making.<sup>37</sup> For example, German officers in school received orders which only address forces available, space to use, and time to attack. These students were not instructed how to accomplish the mission.<sup>38</sup>

In the Second World War, *auftragstaktik* was integral to the early successes of the *blitzkrieg*. Despite this, Hitler came to increasingly distrust his field commanders. Hitler's compulsion to centralize tactical decisions at his headquarters led to some of the Third Reich's worst defeats.<sup>39</sup> Despite centralization at the highest levels of command, many observers have been impressed by the continued tactical flexibility and initiative of the German Army at the lowest tactical level, even later in the war. For instance, German counterattacks often took 15-30 minutes after they lost a position, compared to a reaction time of hours for their British, Soviet or American adversaries.<sup>40</sup>

Is the concept of *auftragstaktik* transferable outside the Prussian/German Army from 1866 to 1945? Many authors have stated that this concept is vital to our own Army's success in future battle. In fact, Simpkin concludes that *auftragstaktik* "appears to be the key to effective implementation of maneuver theory as explained in FM 100-5, Operations. I know of no other command technique that offers the speed and precision of response to match the tempo of the maneuver warfare of the future."<sup>41</sup>

Although post-W.W.II articulations of *auftragstaktik* exist in modern day *Bundeswehr* doctrine,<sup>42</sup> other Germans suggest that *auftragstaktik* died in 1945.<sup>43</sup> Nevertheless, American interest in *auftragstaktik* has recently grown. It remains to be seen to what degree the German Army, or any others adopt it.

Regardless of its current status in the German Army, the historical experience of this Army still provides us with examples of cultural mechanisms which promoted initiative. For any army, adoption of *auftragstaktik* is a major paradigm shift that should "as a minimum embrace an articulated theory of the nature of war, character and leadership attributes, command and control, senior-subordinate relationships, application of tactics, and leader education and training."<sup>44</sup>

However, we must also recognize the inherent difficulties in transferring concepts across eras and cultures. Assuming that the US Army would like to move toward *auftragstaktik*, can we? Not everyone thinks so. Major David Hughes noted the unique elitist and aristocratic cultural underpinnings of the Prussian officer Corps, "modern day knights bound by a chivalrous code of honor."<sup>45</sup> Is this a necessary condition for the use of *auftragstaktik*? Major Michael Harwood similarly cites sociological factors in concluding that "our Army is too big, demographically and socially diverse, and disjointed in outlook to switch to [*auftragstaktik*]."<sup>46</sup>

With full appreciation for the difficulties in glibly demanding that the US Army adopt *auftragstaktik*, as well as recognition that it is dangerous to pick and choose only

the parts of this German concept that suit our current interests, this thesis will continue to return to the notion of *auftragstaktik* in future chapters. The rationale for dependence on this concept is my realization that the Germans recognized some essential components of initiative which will later become the focus of this research effort. A more complete documentation of this discovery is provided in Chapter 3. First, however, we will investigate how initiative is developed or stifled in modern foreign military organizations.

### Cross-Cultural Perspectives on Initiative: The Israeli and Soviet Armies

After WW II, the torch of the "warrior mystique" passed, rather ironically, from Germany to the fledgling armed forces of the emerging Nation-State of Israel. The army that emerged was not a clone of the European models; it was a fresh approach, where function and competence counted for more than tradition and class status. Needless to say, this approach has proven itself quite viable over the first 45 years of Israel's existence.

Among the many lessons that can be taken from the history of the Israeli Defense Force (IDF) in combat, one key issue is the high degree of officer casualties, often proportionally up to three times higher than enlisted casualty rates. Hence, leaders in the IDF regard initiative as not just a point of pride, but an absolute necessity to overcome leader casualties during battle. IDF Officer Candidates undergo training designed to force them to develop initiative<sup>47</sup> (some of these training techniques will be recommended in the final chapter). In training, it is also emphasized that the commander will accomplish his mission according to the general spirit of the command.<sup>48</sup> Additionally, IDF standing orders promote initiative (as well as aggressiveness and an offensive spirit):

1. When orders can't get through, assume what the orders would be.
2. When in doubt, hit out. The short route to safety is the road to the enemy hill.<sup>49</sup>

The IDF has been extremely successful in defending Israel from foreign invasions. However, more recently, the IDF has had to adapt itself to conduct counterinsurgency

missions against the *intifada* in occupied territory. Early attempts to suppress the *intifada* resulted in excessive use of force and civilian casualties. In many instances, these casualties could be attributed to the inappropriate tactical decisions of junior officers and NCOs.<sup>50</sup>

The IDF leadership initially reacted by trying and jailing junior leaders who were found guilty of using excessive force. Hence, during General Rafil Eytan's tenure as IDF Chief of Staff (1978-1983), a "zero defects" attitude emerged. IDF troops began to develop an attitude known as "*rosh katan*" (small head), which connotes someone who "avoids taking responsibility, initiating actions, or diverting from prescribed procedures and instead maintains a low profile."<sup>51</sup> The IDF leadership eventually recognized that *rosh katan* was anathema to the IDF's effectiveness and the nation's survival, and took positive steps to allow for junior leader initiative during missions against the *intifada* and in south Lebanon. Hence, before General Eytan retired, the *rosh katan* phenomena had been largely eliminated.<sup>52</sup>

What lessons can be taken away? Is the Israeli experiment unique, or transferable? As with the German experience, certain cultural factors are unique to the IDF--communal values, siege mentality, greater religious homogeneity, the absence of a professional NCO Corps, the lack of a military tradition. There are profound differences between the Israeli and German cultures; yet, it appears that initiative was able to flourish in each.

This realization in itself does not guarantee that the US Army can adopt these methods; what it does suggest, however, is that initiative is not bound to any single type of national culture. As we now shift focus to consider the experiences of the two most powerful armies of the latter half of this century, we also realize that more than one type of culture may serve to stifle initiative.

With the breakup of the Soviet Union, a study of initiative in Soviet officers might have only historical value. Nevertheless, the military cultures of numerous satellites and

surrogates (not to mention in the many republics that were formed when the USSR finally fragmented in 1991) lived in the shadow of the Red Army for many years, they cannot be expected to change overnight. The Soviet approach to warfare lives, and cannot be ignored simply because the USSR proper has ceased to exist.

Many US military officers see their former arch-rival, the Soviet officer, as rigid, bound in action by the *kollektiv* and tables of norms, and unwilling to think and act for himself.<sup>53</sup> Are the routine and inflexible Soviets "vulnerable to counteraction by more imaginative and agile-thinking individuals of Western democratic societies"?<sup>54</sup> While initiative has not traditionally been emphasized in the doctrine of the former Soviet Army, it had been receiving increasing attention in the 1980's.

However, even their toned down, officially encouraged version of initiative did not appear to receive reinforcement in practice.<sup>55</sup> For instance, despite a recognized doctrinal need for junior leader initiative in mountain warfare, Soviet junior officers and NCOs fighting in Afghanistan have been criticized for failing to display initiative.<sup>56</sup> In a survey of Soviet officers, Dr. Richard Gabriel noted that 71.5 percent felt their brother officers stifled initiative.<sup>57</sup>

This evidence readily fits our stereotypes. However, in reaching judgment, we should understand the Soviet mindset regarding training and success in battle. Perhaps the most important thing to understand about the Soviet view of initiative is that they have a different concept of what the word means. The Soviets define "correct initiative" as "making a creative decision in battle based on situational characteristics and a learned set of scenarios."<sup>58</sup> Studies of the Soviet view conclude that to a Soviet officer, initiative means making a rational choice, or following a prearranged plan.<sup>59</sup> Common to both versions is the notion that some pre-learned plan is available to use. Initiative involves selecting the correct plan, not creating a new one.

In his paper, "Who Has the Initiative?" Major Nick Psaki of the National Training Center points out that the Soviet version of initiative is predicated upon an understanding of the situation, the commander's intent, and his capabilities. The Soviet leader is not a mindless drone, even though it is popular for us to characterize them as rigid and inflexible.<sup>60</sup> The Soviets also have a very results-oriented approach. They do not share the German view that a mistake through action is better than inaction. As Soviet General Kunitski suggests, "initiative has nothing in common with superficiality, recklessness, or dare-devil stuff."<sup>61</sup>

Dissecting the German concept of *auftragstaktik* gave us a historical perspective on the development of initiative. In the Israeli and Soviet armed forces, we find great contrast in relatively current conceptualizations of initiative. Throughout the previous section, we have observed a variety of different assumptions regarding the importance of initiative, and the manner in which entry-level and continuing training is used to develop initiative in a junior officer.

Historical or cross-cultural explorations provide rich context and insight into what can be done. However, we must be cautious in assuming that we can sever a desirable concept from the culture or era in which it thrives, only to transplant it in today's US Army. Therefore, our focus must now shift to our own Army. Earlier in this chapter, we established what US Army doctrine tells us about initiative; our next task is to explore how well theory is translated into practice.

#### Initiative in the US Army

In the previous few sections, we have indulged in generalizations about the overall character of a nation's military, and sometimes even the nation itself. Stereotypes are easily achieved, but we must strive to ensure that we do not allow them to become blinders which cause might this research effort to reach topical or incomplete conclusions

It is probably closer to the truth to recognize that initiative is not unanimously encouraged, developed, or exercised throughout the IDF or Wehrmacht, nor absent in former USSR.

Fortunately, in studying the US Army, a relative abundance of data allows us to get beyond a single generalization and attempt to understand the impact of differences among people, units, and situations. Does our Army develop initiative in our junior officers? The answer, whatever form it eventually takes, is likely to be more complex than "yes" or "no "

Contrary to our commonly accepted traits of independent thinking and "Yankee ingenuity," I have uncovered relatively little evidence to support the rather ethnocentric notion that the American soldier on the battlefield displays any more initiative than the soldiers of other armies.<sup>62</sup> In fact, we might consider our culture's expectations about military service. Ask someone who does not know very much about our Army what a "good soldier" is. Chances are good that their character sketch will be center around a disciplined and energetic young individual who obeys without hesitation or question. One military psychologist has suggested that the "ability to tolerate uncertainty, spontaneity of thought and action, having a mind open to the receipt of novel, and perhaps threatening, information--are the antitheses of those possessed by people attracted to the controls, and orderliness of militarism."<sup>63</sup>

Of dozens of articles reviewed, the majority condemn our Army's status regarding initiative. This complaint is echoed in the cynical classroom conversations among students at the US Army's Command and General Staff Officer's Course (CGSOC). The theme, with only minor variation, usually adheres to the following script: We need to have initiative at all levels of leadership on the future battlefield. Yet, we can not have it because the leadership climate makes the cost of taking any chance prohibitive. The



Israelis called it *rosh yotan*, the equivalent (and equally pernicious) buzzwords in today's US Army appear to be "zero defects" or "micromanagement."

In exploring current discussions of initiative in our Army, constant references to *auftragstaktik* abound. Many authors advocate adoption of *auftragstaktik* in our Army, treating junior officer initiative as a major byproduct of this larger effort. Our exploration of the original form of *auftragstaktik* suggests that this is a reasonable linkage between the two concepts, and we will continue to encourage this association throughout this thesis. However, care must be exercised not to treat *auftragstaktik* and initiative as synonymous; the former is a holistic way of thinking about war, the latter is a specific behavior which should flow from that way of thinking. The conclusion usually reached in such writings is usually that our Army promotes neither *auftragstaktik* nor initiative.

Is this criticism deserved? Unfortunately, too much of the contemporary literature on this subject has served to inflame the discussion without exploring much beyond the surface-level issues. In fact, there are plausible alternative hypotheses for the literature's generally gloomy outlook regarding initiative in the US Army. For instance, one of the earliest motivational theorists, Frederick Herzberg, suggested that there are two different types of motivational factors: "hygiene" and "motivators." Hygiene factors cause dissatisfaction when absent, but do not lead to satisfaction if present; in other words, we take them for granted. On the other hand, motivational factors lead to satisfaction when present, but do not necessarily cause dissatisfaction when absent.<sup>64</sup> If initiative has become a hygiene factor (and I have no evidence to state whether it is a hygiene or motivator factor), we should not expect people to laud its presence--only bemoan its absence.

The more subtle point that Herzberg helps us comprehend is simply that if there are officers who feel that they have the opportunity to exercise initiative, we should not assume that they will voice their satisfaction with the same zeal that the deprived will

voice their dissatisfaction. In other words, it is possible that we are not getting a true representation of the Army's ability to foster initiative if we assume that those that are motivated to write about the problems represent a random sample of the population of Army officers.

The bias is so strong that some authors drop any pretense of objectivity with monographs like "Is the Army's Current Problem with Decentralized Command and Control a Function of Doctrine or Training?"<sup>65</sup> and "*Auftragstaktik*--We Can't Get There from Here." With little more than a few anecdotes to support his case, the latter author concludes:

The Army's senior leadership does not uniformly embrace *auftragstaktik* and the Army's style of warfare is incompatible with the precepts of *auftragstaktik*. The tradition of initiative within the Army is questionable and the Army's preoccupation with technology and bureaucracy inhibits the full implementation of *auftragstaktik*.<sup>66</sup>

While the rhetoric of such monographs may seem provocative, the essential conclusions are similar to those espoused in many of the less overtly biased works. For instance, Major David Cowan analyzes the necessary components for *auftragstaktik*, and concludes that the US Army's ability to introduce this concept is limited by stability within the Army, training efforts, and command climate.<sup>67</sup> In other words, as long as we manage, train, and lead our force as we do, we cannot promote *auftragstaktik*.

However, it would be unfair to summarily conclude that initiative is dead in our Army. Several researchers have determined that "power down" is one of the most frequently identified pillars of the excellent combat arms battalions and brigades.<sup>68</sup> In such units, "subordinates are permitted . . . even encouraged, to use initiative and learn by doing. And if mistakes were made in the process but led to learning and getting better . . . so be it!"<sup>69</sup> These "Excellence studies" also found that the best units had reputations as "risk takers." Their leaders believed that the "old CYA [Cover Your Ass] attitude just

doesn't cut it anymore."<sup>70</sup> These excellent units focus on achievement, not failure; they underwrite honest mistakes.<sup>71</sup>

Historians can readily provide evidence from the annals of US Army combat operations to support any position regarding the degree of initiative that our junior leaders display. For instance, FM 100-5 lauds the actions of an Army lieutenant at Remagen Bridgehead: "In that instance, an infantry platoon leader who understood the goal of his division commander acted promptly and without orders to secure an advantage that altered the course of the Army's whole campaign."<sup>72</sup> While the field manual cites this as an ideal example, its inclusion does not tell us whether such behavior is the exception or the rule.

Of course, others came to different conclusions about our performance in the Second World War, in which American general officers noted that junior officers lacked initiative and were reluctant to take responsibility.<sup>73</sup> General William E. DePuy, TRADOC commander and one of the principal architects of the AirLand Battle, "emerged from [World War II] convinced that self-starters were rare in the US Army but that detailed orders and thorough supervision by commanders could overcome that deficiency."<sup>74</sup>

### **The Stifling of Initiative in the Modern US Army**

If initiative in the hands of junior officers is a combat necessity, as suggested by our doctrine, then why wouldn't our Army seek to promote it? The majority of respondents to this issue cite a command climate that is obsessed with style over substance; quantity over quality; careerism over selfless service. For instance, surveys conducted at Ft. Leavenworth's Pre-Command Course suggest real concern about pressures that will make it hard to develop AirLand Battle leaders:

Personnel turbulence as well as bureaucratic 'BS,' reports, inefficiency, and the requirements for RBIs (Responses [sic] By Indorsement) on every mistake distracted them from accomplishing their tasks. Statistics and a 'Zero Defects' mentality as well as weak or timid commanders and leadership by threat and fear also contributed to preventing [future brigade and battalion commanders] from doing their jobs.<sup>75</sup>

According to a 1986 US Army Training Board discussion paper, current corps through battalion commanders do not reinforce junior leader initiative except in scout platoon leaders (the paper did not explain why this exception was noted). Furthermore, the US Army's Center for Army Lessons Learned (CALL) has documented a higher frequency of mission failures when junior-level leaders are given specific "how to" orders instead of more general mission orders. Ironically, shorter "mission type" orders were driven primarily by time constraints, not a decentralized climate.<sup>76</sup>

As the previously cited Leader Development Study concluded, A's or F's are the only grades given to commanders, based upon NTC performance; any "F" stops that officer's career. The battalion and brigade commanders, not confident that an honest mistake will be forgiven, withhold authority and responsibility in order to better control outcomes.<sup>77</sup>

Efficiency can also be the enemy of leader development, since it is "often used as a rationalization for centralization and oversupervision with predictable results."<sup>78</sup> Many writings, such as the 1987 Leader Development Study, do not distinguish between effectiveness and efficiency. On the other hand, FM 22-103 suggests that "effectiveness and efficiency may become adversarial concepts rather than supporting one another."<sup>79</sup> This may be a useful distinction. For instance, leadership consultant Stephen Covey also regards these as distinctly different concepts. To Covey, effectiveness is focused on empowering one's potential to develop the maximum long-term benefits, while efficiency is focused on short-term production criteria.<sup>80</sup> Since short term production criteria are often

easily managed by statistical quotas, the quest for efficiency may unintentionally produce by-products such as "zero defects" or "micromanagement."

Without doubt, our Army's most audacious attempt to inculcate decentralization and initiative throughout a peacetime chain of command occurred during the early 1980s at Fort Hood, Texas. In 1981, General Edward C. Meyer, the Army Chief of Staff, directed the III Corps Commander, Lieutenant General Walter Ulmer, Jr., to implement a series of "Human and Leadership Goals." A central pillar of this program was the adoption of a "power down" philosophy, which stressed the decentralization of responsibility and authority to the lowest possible levels. Despite the fact that numerous participants and observers declared the "power down" experiment a clear-cut success, morale-builder, and combat multiplier,<sup>81</sup> some have noted that Army leaders have not embraced the Fort Hood initiatives in practice.<sup>82</sup>

Ironically, just as General Eytan was promulgating *rosh katan* as the IDF's Chief of Staff, General Meyer was attempting to instill a "power down" command philosophy in the US III Corps at Fort Hood. While the intent of these two leaders may have had little in common, they shared a common challenge: they both were swimming upstream in their respective cultures. Perhaps these divergent efforts might be characterized as the search for efficiency versus the search for effectiveness.

Generals Meyer and Ulmer were not the first senior American commanders to promote a decentralized command climate. For instance, General Ulysses S. Grant has been recognized as an early proponent of giving intent, but not specific detailed orders, to his subordinate leaders.<sup>83</sup> Such leaders, however, appear to be the notable exceptions.

Why do leaders resist, and eventually extinguish, power down? Lieutenant Colonel William Rollins and Captain Bob Evans of III Corps Headquarters provided numerous reasons why leaders resisted. These issues included: junior leader experience/incompetence; task complexity; a failure to understand "power down";

personal leadership style or symbolic military leader image in conflict with "power down"; resource constraints; belief that "power down" promotes low standards; slow results; fear of career failure; "Vietnam syndrome" (operational oversupervision by leaders at several higher echelons); focus on short range, rather than long term; junior leaders lack information and/or perspective; and the leader's boss doesn't support it.<sup>84</sup> In fact, one of the vital findings discovered during the experiment was that power down could be blocked by ANY level of the chain of command.<sup>85</sup>

### Current Trends Affecting Initiative in the US Army

As if the accumulated evidence of our Army's ability to develop initiative isn't discouraging enough, we have to consider some current trends which may further complicate any attempts to develop initiative: the downsizing of our Army and the new technologies making micromanagement more tempting than ever before. We have had a sneak preview of both these issues before: the "zero-defects" Army of the 1970s, and the "command helicopter syndrome" of Vietnam.<sup>86</sup>

It is difficult to discuss initiative in the US Army without acknowledging the specter of "zero defects." This inflammatory jargon has been liberally applied to any perceived attempt by Army leaders at any level to set a standard in which any mistake whatsoever is career-ending. Clearly, this mentality has many negative consequences, and its existence is both acknowledged and discouraged by the highest levels of Army leadership.<sup>87</sup>

To those in the US Army of 1993, zero defects might seem like a recent trend, brought upon by the drawdown of the 1990s. Of course, it is not; there is documentation of this mentality existing in, if not dominating, our Army, at least since WW II. Lieutenant Colonel Dan Bolger's article "Zero Defects: Command Climate in the First US Army, 1944-1945," focuses on the "unimaginative caution" and frequent reliefs perpetrated by

Bradley, Hodges, and Collins, suggesting that a zero defects mentality contributed to missed opportunities and failed battles at Normandy, Falaise, the West Wall, Huertgen, the Ardennes, and Remagen.<sup>88</sup>

The term "zero defects" was also applied to a period in the last days of our Army's involvement in Vietnam.<sup>89</sup> According to the 1984 Army Science Board:

Many officers view the Army as a "zero defects" Army, especially as concerns the approach taken to evaluate their duty performance in units. This stymies initiative and individual professional development . . . . OERs are less based on success in assignment, quality of work, and creativity than on getting along, not "making waves," and not making mistakes.<sup>90</sup>

In 1985, Major General William J. Mall also wrote that he had heard a lot of talk of a "one mistake career" mentality from too many junior officers and NCOs.<sup>91</sup> Although General Mall was a US Air Force officer addressing an air force observation, his insights echo a complaint heard in today's Army, as evidenced by the Junior Officer Leader Development Study (JOLDS) discussed in the next section.

The point of this brief survey of the history of "zero defects" is simply to establish that the phenomenon is not at all new to our organizational experience. In other words, what may seem like a "new" problem probably isn't. One indicator that the highest Army leadership is sensitive to the problem is demonstrated by a letter from General Gordon Sullivan, the Army Chief of Staff, to the CGSOC Class of 1993:

Although some consider "zero defects" a surrogate for excellence, it has many negative consequences. Not only does it make the army, as an institution, very risk averse, it also creates an environment where ethics are easily compromised. The risk taking that I see at our training centers and in reorganizing the army's base and business practices gives me reason to be optimistic. Moreover, I believe that the senior leadership has rooted out the worst of this behavior out of the system—but we must not kid ourselves.

Ethical behavior and a climate of innovation and risk taking start with each of us. I cannot create the proper command climate for a battalion or company. We as leaders are responsible for the perceptions of our subordinates. Put

yourself in their shoes and determine whether or not you would feel comfortable having taken a prudent risk and failed.<sup>92</sup>

In addition to a concern with "zero defects," certain technology is being fielded which attempts to overcome the handicaps of the future battlefield by increasing communications capabilities, reports, and supervision. While the intent of these programs is to track vehicles and reduce fratricide, the growing number of technologically sophisticated acquisitions in information devices such as position locators and communications allow higher commanders to "micromanage" every vehicle on battlefield, at the risk of inadvertently stifling initiative. This trend might be a variation on "be careful of what you wish for, because you might get it " These technological capabilities have renewed the concern that our Army has not learned its lesson about the "command helicopter syndrome."<sup>93</sup>

According to Lieutenant Colonel Robert Schmidt, "the current search for control has led to a proliferation of facilities, organizations and procedures to enable commanders to exercise the centralized direction of subordinates."<sup>94</sup> For instance, Mobile Subscriber Equipment (MSE) allows corps commanders to dial battalion commanders directly. The InterVehicular Information System (I<sup>2</sup>/VIS) will allow a task force commander to track the exact position of every tank in the task force.<sup>95</sup> Major John Stoner's recent SAMS monograph on the future of battlefield communications asserts that "if tactical commanders have access to more and more information about their subordinates' activities, they may be tempted to use it to exercise ever greater control over their employment."<sup>96</sup>

While such technological solutions ostensibly improve command and control, this trend may reflect a less than desirable trait of the American military culture: a predilection for assuming that technology can solve human problems; ergo, the more technology, the better. In support of this contention, it is interesting that while initiative is not a current doctrinal leadership competency, "use of available systems" is one of the nine leadership



competencies prescribed in FM 22-100.<sup>97</sup> Our Army has seen the effects of technologically-driven overcontrol before. According to Lieutenant General Dave Palmer's book Summons of the Trumpet:

In the final analysis, . . . the helicopter's most pernicious contribution to the fighting in Vietnam may have been its undermining of the influence and initiative of small unit commanders. By providing a fast, efficient airborne command post, the helicopter all too often turned supervisors into oversupervisors.<sup>98</sup>

Earlier in this chapter, we had noted that the introduction of field telephones into German units in the First World War had the undesirable side effect of stifling initiative, as senior leaders took advantage of the technological advance to exercise greater supervision and control over their subordinates. By the next war, the Germans had apparently learned their lesson: after the invasion of France in 1940, the German Army attributed their stunning success to the manner in which they had integrated technology into their already established *auftragstaktik* operating procedures, rather than letting new and seductive technologies determine how they would operate.<sup>99</sup> Doctrine dictated technology, and not vice versa. The US Army may now be facing this same dilemma.

Clearly, there is a need for delicate balance in dealing with these trends. The opposite of "zero defects" is "lots of defects," an unacceptable norm for our Army. With regard to technology, the issue might be framed in terms of command and control, or more precisely, command *versus* control.

### The Command Versus Control Dilemma

The issues raised in the last sections have led some to conclude that "our tactics are thus out of balance with the command and control system."<sup>100</sup> What, exactly, is "command and control"? Although there is some variance between doctrinal publications regarding the definition of command and control,<sup>101</sup> JCS Pub 1-02, Department of Defense Dictionary of Military and Associated Terms, offers the following definition:

The exercise of authority and direction by a properly designated commander over assigned forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures which are employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission.<sup>102</sup>

The 1986 edition of FM 100-5 also treats the phrase "command and control" as a single term. This definition suggests that there is no functional distinction between "command and control," suggesting that "... to talk of command and control is redundant, or perhaps it indicates an inability to think of command in other than its control aspects."<sup>103</sup>

However, there is increasing support for the notion that "command and control" is not one word; "command" and "control" have different functions.<sup>104</sup> Lieutenant General Wilson Shoffner supports that belief, and draws the distinction between the two terms by noting that command is the commander's business, an art; while control is staff business, a science. As Colonel Frederick Timmerman noted, "by focusing on control, Army leaders have developed habits which will be difficult, if not impossible, to break once the shooting starts."<sup>105</sup> Major John Vermillion goes even further, suggesting the terms are antithetical.<sup>106</sup>

While the 1986 FM 100-5 may not usefully differentiate between the concepts of command and control, this manual does state that "the ultimate measure of command and control effectiveness is whether the force functions more effectively and more quickly than the enemy."<sup>107</sup> Having recognized that there is a balance to be struck between command and control, some have offered advice on how to strike this balance. General John Foss notes that "a good commander is like a good horseman; he maintains a strong grip, and, at the same time, keeps a loose rein."<sup>108</sup>

Martin van Creveld, a military scholar who has written much on the subject of command and control, favors a "directed telescope" approach, similar to that used with

impressive results by such different armies as the Roman Legions, the French *Grand Armee* of Napoleon, Moltke's Prussian Army, and Patton's Third Army. This approach to command and control is less dependent on explicit detailed orders or multiple reports from subordinate headquarters. Commanders using the "directed telescope" exercise control while decentralizing by placing a trusted subordinate in the key place and/or time whose job is to immediately and accurately transmit relevant information to the commander.<sup>109</sup>

At first glance, a discussion of command and control may seem "off track" from a survey of issues impacting on the development of initiative in junior leaders. It is not. Command and control systems dictate the boundaries and guidance within which junior leaders are expected to operate. To attempt to zealously argue the need for greater initiative without recognizing and appreciating these limitations is ludicrous; the prime consideration must remain combat effectiveness. By the same token, however, technology should not be the basis for decisions regarding command and control. If this becomes the case, we may unintentionally allow the development and fielding of technological innovations which threaten the junior leader's ability to display initiative.

Up until now, this chapter has focused on a wide range of examples and issues which might have a direct or indirect impact on any attempts to develop initiative in the US Army. In particular, we have seen in *auftragstaktik* a concept which appears to be capable of developing the degree of initiative which our doctrine demands. However, despite what is espoused in our doctrine, many have expressed considerable concern that today's US Army is not capable of achieving greater levels of initiative.

So far, this literature review has given air to many positions and conclusions which are long on opinion but short on objective support. As stated in the first chapter, one of my primary goals is to seek a better standard of evidence than has characterized most of the literature on this often emotional subject. Therefore, in the final section of this

chapter, we will consider the conclusions reached by various empirical studies which may bear on the issue of developing initiative.

### Empirical Studies of Initiative

An empirical study is one that seeks to demonstrate truth through the portrayal of data pertaining to the phenomenon under investigation. This does not imply that such studies are unaffected by the bias of the researchers, nor even that they are "scientific." However, caveats notwithstanding, studies have been conducted regarding initiative, and they can potentially provide considerable insight in attempting to verify or disprove any particular hypotheses with regard to initiative.

There is a general disadvantage to using previously captured data to draw conclusions in that other researchers did not necessarily define initiative precisely as I have, or looked at populations other than junior officers, or do not share the particular assumptions I have made. Furthermore, things change; today's Army might be very different indeed from the Army of a decade ago, or even a year ago. On top of all this, there is no such thing as a "perfect" study, since it is impossible to isolate or control for any number of variables encountered in the real world. Such limitations should not cause us to ignore the data--only to be cautious in attempting to generalize beyond the particulars of the previous research.

I have attempted to be exhaustive in this survey. The following chronologically ordered review represents all studies in the past decade (of which I am aware) that somehow offer insight into some aspect of initiative in military leadership. In order to avoid any bias on my own part, I have made no attempt to eliminate any study, even if it seems rather peripheral. I will reserve my integrating comments and conclusions about the total weight of evidence until each study has been described.

Professional Development Officer Survey (PDOS), 1984. This ambitious and multi-faceted Army-wide survey polled the perceptions of 14,046 officers on a wide range of issues related to officer professional development. On one statement, "The bold, original creative officer cannot survive in today's Army," 48.5 percent of company grade respondents agreed; for field grade officers, the proportion agreeing was a virtually identical 48.4 percent.<sup>110</sup>

Leading and Manning Army 21: Final Report of the 1984 Summer Study. The 1984 Army Science Board Summer Study, while not offering details as to methodology, concluded that "many officers view the Army as a "zero defects" Army, especially as concerns the approach taken to evaluate their duty performance in units . . . [which are less based] on success in assignment, quality of work, and creativity than on getting along, not "making waves," and not making mistakes."<sup>111</sup>

Essex Corporation, Final Report, Fort Hood Leadership Study, 1986. Headquarters, Department of the Army contracted the Essex Corporation to prepare a final report on the effects of the human and leadership goals implemented at III Corps and Fort Hood, Texas from 1982 through 1985. The III Corps initiative was a complex and ambitious undertaking, resistant to any succinct conclusions. However, survey data are presented which indicate that the experiment was largely successful in developing, among many other things, leader initiative.

On a Self-Administered Questionnaire (SAQ) of 158 soldiers and leaders, 62 percent responded that they disagreed or strongly disagreed with the statement "I did not have authority to do my job." Similarly, of 200 soldiers and leaders, 65 percent responded that they agreed or strongly agreed with the statement "I could tackle my job without fear that a single mistake would bring strong criticism or a poor performance rating."<sup>112</sup>

In addition to the quantitative data, 103 interviews revealed additional insight into the success of the efforts at Fort Hood. About 60 percent of the interviews were classified

as favorable regarding the initiatives; 25 percent were mixed; 10 percent were neutral, and only 5 percent were negative. What was most interesting about the negative interviews, according to the researchers, was that:

Although the above comments were negative in tone, underlying them is an attitude that is not inconsistent with the goals of Power Down. Those categorized as 'Negative' were in reality saying that 'Power Down' would be a good idea were it to be implemented. Had they seen 'Power Down' implemented in the way it was intended to be, they might have had a very different attitude.<sup>113</sup>

Apparently, something had gone very right at Fort Hood. However, it is important to note that even in the apparently enlightened climate which existed at Fort Hood in 1985, there were still junior officers who failed to display initiative.<sup>114</sup>

Cowan Monograph Study, 1986. Major David Cowan conducted interviews of officers and NCOs at Fort Leavenworth, Kansas. Despite severe limitations in reliability due to a small sample size (17 officers) and the informal nature of the interviews, Cowan's findings are noteworthy. He found that the lieutenant colonels had an "extremely positive attitude on the subject of freedom to command;"<sup>115</sup> among the majors, "half felt they were granted total freedom, while the others felt they were somewhat or severely restricted in performing their duties."<sup>116</sup> All but one, however, "felt that he was a decentralized operator, tolerated mistakes, and granted subordinates extreme latitude in the performance of their duties."<sup>117</sup> Similar findings were noted among the seven interviewed captains.

In October 1986, Major Cowan also conducted self-administered surveys (instead of informal interviews) of 80 NCOs at Ft Bliss, Texas. The results paint a very encouraging picture: 64 percent of the NCOs agreed that they "understood that [they] could deviate from the plan if necessary"; 80 percent agreed that "in the past, when I or one of my peers made a mistake, the leaders were [tolerant or somewhat tolerant]." Most encouraging of all, 89 percent of the surveyed NCOs either strongly agreed or agreed with

the statement "I feel that the Army has provided me with effective training in the art of decision making and independent thought/actions."<sup>118</sup>

Army Leader Requirements Task Analysis: Commissioned Officer Results, 1990.

Army Research Institute Technical Report #898 reports findings regarding how junior leaders perceive the importance of 560 different tasks, including many related to initiative. The 5033 commissioned officers included 693 lieutenants and 940 captains. Tasks that were perceived as "critical" (receiving ratings of 5 or higher on a 7 point scale of significance) by both company and field grade officers included the following:

- C13. Allow subordinate leaders to learn from their mistakes
- C4. Train subordinates to take initiative
- C12. Support decisions of subordinate leaders
- C3. Delegate authority to the lowest appropriate level
- C2. Delegate decision-making to subordinates
- E9. Take charge in the absence of instructions from commander<sup>119</sup>

One of the most interesting findings evident in this study was that these tasks were considered much more critical for officers assigned to Table of Organization and Equipment (TOE) units than officers assigned to Table of Distribution and Allowance (TDA) units.

Leadership Climate Survey, 1991. Following Desert Storm, Dr. George Eddy (Colonel, retired) conducted surveys of 134 officers at the Field Artillery Officers Advanced Course (FAOAC). These surveys, consisting of both qualitative and quantitative data, focus on issues affecting leadership climate.

Some of the results are difficult to reconcile. For instance, among the 80 captains interviewed on leadership environment issues in their last troop duty assignment, 80 percent believed that they had considerable freedom of action on the job, yet 52 percent also claimed that they were expected to "go by the book." Only 27 percent of the captains surveyed indicated that micromanagement on the part of their superiors was inhibiting. When asked if they had experienced encouragement to try out their ideas for improving

the unit, Colonel Eddy reported that 46 percent expressed a neutral opinion, disagreement, or strong disagreement (this may be a more direct measure of innovation, but necessarily subsumes the notion of initiative).

Additionally, 45 percent of the captains expressed a neutral opinion, disagreement, or strong disagreement that junior officers were well prepared to function on their own when cut off on the battlefield. Similar trends were found among the 52 lieutenants interviewed. However, when Dr. Eddy obtained separate data on combat experience from the 56 officers with experience in the Persian Gulf War, micromanagement was considered to be extensive and probably pervasive, according to 80 percent of the lieutenants and 76 percent of the captains.<sup>120</sup>

Leadership Performance Measurement in a Tactical Environment, 1991. Army Research Institute Research Report #1580 reports some quantitative evidence from Observer/Controllers (O/Cs) regarding displays of initiative at the National Training Center. One of the potential values of these data, unlike most of those presented previously, is the attempt to assess a behavioral (as opposed to attitudinal) measure of initiative in junior leaders. In preparing to collect the survey data, O/Cs defined initiative as "exploiting opportunities"; "the point seems to have been that effective leaders need to keep going and take actions to improve their unit's preparation or execution, without direct instructions to do so."<sup>121</sup>

The average Platoon Leader (PL) rating on initiative was 2.5 on a 1 to 4 scale, upon which a 2 indicates "somewhat below standard" and a 3 indicates "meets standard."<sup>122</sup> To put these data in perspective, however, the range of average PL performance in all measures of leadership task performance varied from 2.3 (for planning) to 2.6 (for soldier/team development). Hence, it is difficult to conclude that initiative is any more of a problem than a number of other leader competencies.



This study also considered the relative importance that various key personnel assigned to the various leadership tasks. While an earlier ARI study had found that company commanders considered initiative to be tied as the second most important leadership skill (behind technical/tactical proficiency, tied with decision making),<sup>123</sup> the current study found that the platoon O/Cs regarded initiative to be the fifth most important task, behind planning, technical and tactical competence, communication, and decision making.<sup>124</sup>

Army Research Institute and Center for Army Lessons Learned Leadership Lessons Learned, circa 1985 to present. This is a loose grouping of multiple subjective Observer-Controller (O/C) reports that addressed initiative displayed by junior leaders at the Combat Training Centers (CTCs). While several published reports have discussed these findings, it is not entirely clear whether these reports were covering a single study or multiple studies. Reports of these data are generally numbers-weak but content-rich. One author summarized these studies as follows:

At all levels, subordinates frequently fail to report accurately, to make recommendations, and to request or suggest changes to plan . . . junior leaders and soldiers do things they know are inappropriate because they "were ordered to do it." They do not feel that they have the latitude to make the on-the-spot adjustments a situation demands.<sup>125</sup>

One study derived from this data base was generated by Steinberg and Leaman in their 1990 ARI presentation entitled "Leader Initiative: From Doctrine to Practice." This study is particularly relevant to this thesis, as it attempts to explore the inhibitors of initiative in detail. Steinberg and Leaman report that respondents indicated that initiative is very important for success in combat. O/C ratings of platoon success and platoon initiative demonstrate significant correlations.

Post-CTC interviews and questionnaires revealed some expected inhibitors to initiative: micromanagement and lack of trust, climate, career protection, and the desire to

appear loyal. However, other reported inhibitors did not appear to be based on command climate; this included lack of information, lack of motivation, no opportunity, lack of clear solution to the problem, lack of time, fatigue, and inexperienced leaders.

Junior Officer Leader Development Survey (JOLDS), 1992. The purpose of this survey was to identify concerns and propose solutions to various issues of junior officer leader development (including initiative). In order to collect the data, 358 officers from across the Army were gathered into sensing groups. Findings included the unanimous perception that initiative is NOT rewarded, as well as the perception that the downsizing has led to a "distressed culture" where honest mistakes are not being underwritten.<sup>126</sup>

According to the senior officers surveyed, initiative was the third-most needed leadership competency for junior officers (92 percent), following ethics (100 percent) and communicative skills (100 percent). It is interesting to note that in the eyes of field grade officers, initiative in a junior officer rated even higher than tactical and technical competence (85 percent). Conversely, only 30 percent of the junior officers felt that initiative was vital, ranking sixth, behind the above skills, as well as interpersonal skills, technical/tactical competence, and team building.<sup>127</sup>

### Empirical Studies: Conclusions

While each of the studies reported in this section sheds additional light on the phenomenon of initiative in junior leaders, they have actually addressed a wide range of different research questions on the importance, presence, and inhibitors of initiative. Furthermore, the divergent methodologies that different researchers used for any particular question dilute the degree to which these data are readily synthesized. However, as we did earlier with the review of literature, this section will attempt to draw some inferences from the collected body of empirical evidence.

With regard to the importance of initiative, ARI Technical Report #898 suggests that junior officers do indeed perceive initiative as being important to their success. This finding is consistent with our operational doctrine.

Drawing a conclusion about the degree of initiative shown by junior officers is much more difficult; the JOLDS study and 1984 Army Science Board Summer Study conclude that initiative is being stifled. Dr. Eddy's Fort Sill study and ARI Research Report #1580 show mixed results; and Cowan's study suggests that a healthy degree of initiative is still being exercised. The PDOS study, while not directly addressing this question, provides an indicator that many officers feel it would be difficult for an officer showing initiative to survive in the Army.

The ARI and CALL reports of CTC data give us insight into the wide range of factors which can stifle initiative, while the Essex Corporation report on Fort Hood also reminds us that initiative can be developed. We will rely on these findings in the following chapter, in which we will attempt to gain better understanding of the components of initiative.

### Interim Conclusions

The total weight of doctrinal, historical, cross-cultural, and empirical evidence presented in this chapter leads us to the fairly clear conclusion that initiative is important for junior leaders. However, in both the literature and the research, there appears to be some variance of opinion as to the degree to which our junior officers currently display initiative. The majority of the literature is almost uniformly critical of the degree of junior officer initiative, yet the empirical evidence for this position is mixed at best.

With regard to the factors which impact upon initiative, the literature tends to focus on command climate issues. While many of the empirical studies support the notion

that command climate is the major inhibitor of initiative, at least one report (Steinberg and Leaman) offers us some interesting insights into other factors that stifle initiative.

In order to add weight to any conclusions regarding the display of initiative, an original study will be developed which will seek to add new evidence to these issues:

1. To what degree are junior officers displaying initiative?
2. What factors inhibit the display of initiative?

## CHAPTER 3

### METHODOLOGY

In the previous chapter, we noted that more evidence is sought to address the following questions: To what degree are junior officers displaying initiative? What factors inhibit the display of initiative?

If we simply wanted to answer the first question, we could quickly and easily achieve an answer with a brief survey. However, before we can answer the latter question, we must attempt to understand the factors, or components of initiative. An improved understanding of these components of initiative will provide us considerably increased clarity and power in formulating recommendations for developing initiative. This is where we will now shift our focus.

#### Levels of Analysis in Understanding Initiative

As noted in the first chapter, initiative can be examined with a macro- or a micro-level analysis. The macro level is essentially an investigation of organizational culture<sup>1</sup>, while the micro level explores an individual's decision making processes. Let us briefly consider some of the basic operating assumptions and parameters of each approach.

The organizational level of analysis focuses on how the climate of the organization fosters or inhibits initiative. The tacit assumption of such an approach must be that initiative in a given leader is a function of the climate; hence, the organization is "responsible" for initiative. In their article "Jazz Musicians and Algonquin Indians," Colonel Mike Malone and Major Mike Magee argue that an organizational approach is more appropriate for understanding the Army. The individual approach ultimately can not

work, they suggest, because the reductionist logic used to isolate each leader-follower-situation interaction leads to infinite unmanageable variations.<sup>2</sup>

Students of one well-known model of organizational culture often describe an organization's culture as either mechanistic or organic. According to James G. Hunt and John D. Blair, the traditional paradigm which has guided armies for centuries is "mechanistic"--that is, formalized and structured. Armies have evolved toward a mechanistic design for good reasons--the nature of past warfare has encouraged it. Mechanistic organizations are "designed to build compliance to orders and minimize individual thinking and deviation from these orders. In short, mechanistic paradigms are designed to promote predictability."<sup>3</sup> Unfortunately, a design which expects people to function as precise pieces in a finely-tuned machine will almost certainly stifle any individual initiative, since this would only lead to chaos and inefficiency in the machine.

By contrast, the individual level of analysis focuses on how the individual decides whether or not to display initiative. The underlying assumption of this approach must be that initiative in a given leader is a product of a decision; hence, the individual is "responsible" for initiative. The macro approach is present only in that the individual makes his or her decision based upon perceptions about, among other considerations, the organizational culture.

There is no need to choose between the organizational and the individual frameworks. Why not use both, and see where they intersect? By considering both levels, we can seek to have both meet at a sort of "promontory point" for the study of initiative, at which both the organization and the individual understand their responsibilities and limitations.

### The Case for a Model of Initiative

The most significant contribution of this thesis may be to synthesize what is known about initiative in junior army officers into a newly-developed model. This synthesis will build from the literature covered in the previous chapter, particularly our understanding of *auftragstaktik*.

The inspiration to use a model occurred while drafting the last chapter, and stemmed from the difficulty that I was having in making sense of the different factors that were ostensibly developing or stifling initiative. The various components which eventually became parts of this model came from multiple sources:

- A. The notion from FM 100-5 that AirLand Battle leaders require both willingness and ability to display initiative.
- B. A conversation with Dr Alma Steinberg at ARI, in which she added that "habit" also appeared to play a role, according to her research. This insight seems to confirm that initiative can indeed be developed, and should, in fact, be practiced.
- C. Additionally, as we discussed the issue, and I tried to flesh out a decision making model, Dr. Steinberg suggested that I explore the "bystander effect" from social psychology literature. According to this model, a number of conditions have to be in effect before an individual will help another. These conditions can be laid out into a flow chart, in which the answer to each of these questions will define the solution, if any:
  - 1. Do I see a problem?
  - 2. How shall I deal with it?
  - 3. Can I identify the best sources of help, or develop strategies and tactics of asking for help?<sup>4</sup>
- D. Martin van Creveld's statement, based upon what the Germans institutionalized, that for decentralization to work, an army needs:
  - 1. Uniformity of thinking
  - 2. Reliability of action
  - 3. Complete confidence in subordinate-commander relations<sup>5</sup>

E. The 1983 edition of FM 22-100, which stated that the inhibitors of initiative are: lack of understanding the mission, lack of accurate information, and lack of understanding the frame of reference (i.e. values, goals, way of thinking) of the higher level leader and the subordinates.

F. Dr. Steinberg and Leaman's paper on "inhibitors of initiative,"<sup>6</sup> cited in Chapter 2, which was based on information collected in CTC take-home packages, post-CTC interviews, and post-CTC questionnaires.

It became increasingly clear that there were many different reasons why a leader might not display initiative. What remained, then, was to develop a model which would adequately capture these components of initiative.

After comparing what the Germans did to develop initiative, through *auftragstaktik*, with what some perceive that US Army allegedly does to stifle initiative, as most thoroughly outlined in Steinberg and Leaman's work, I recognized a series of essential questions which a person must answer in his or her mind in choosing whether or not to display initiative. The bystander intervention model served as an example of a decision-making model used to portray such thought processes. This was the central insight which guided the development of the model.

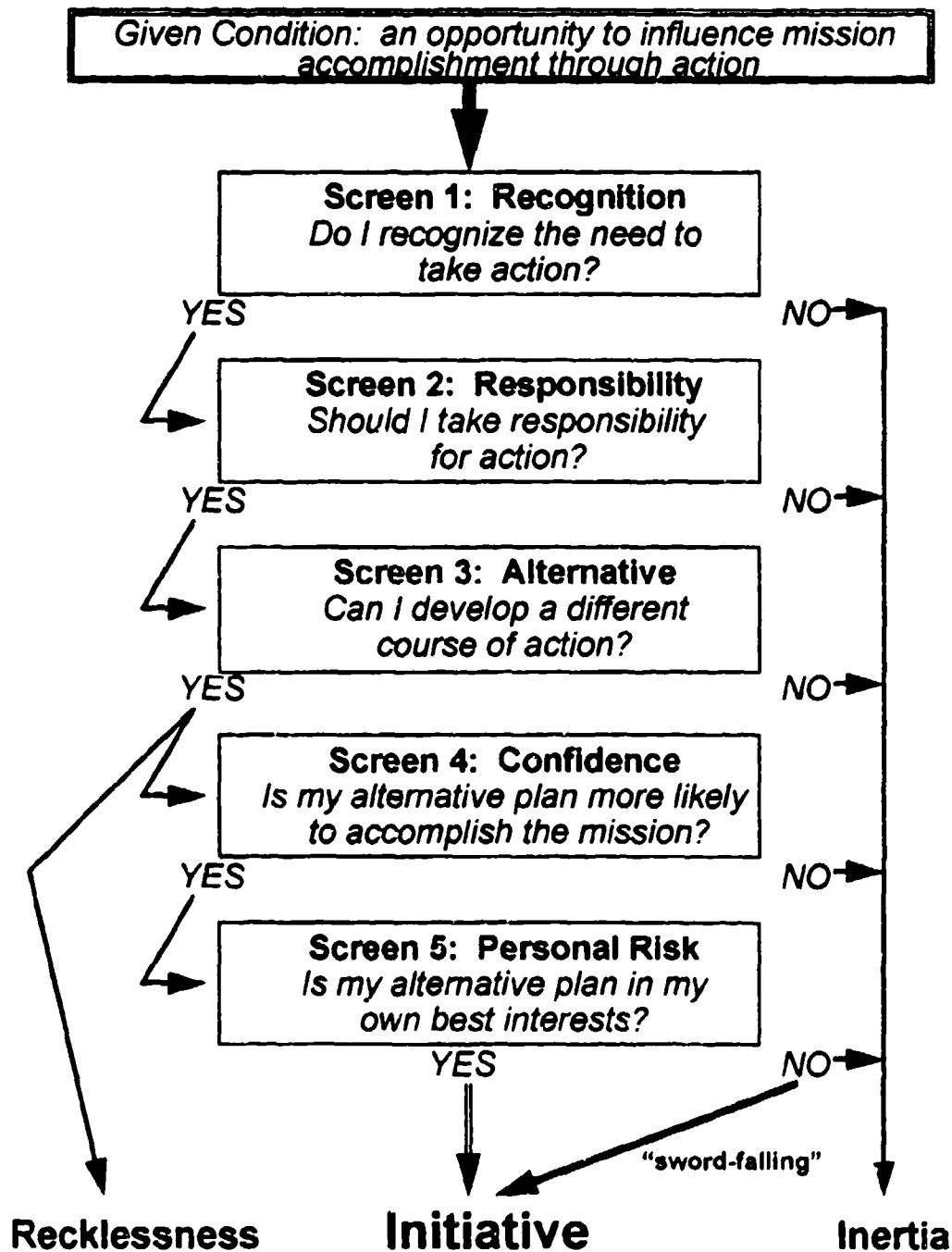
### Development of the Model

The decision-making model of initiative is presented in Figure 1. At first glance, the model is relatively complex. So is the human mind! Initiative looks like a behavior to the observer, but behavior is the product of rational human thought. Furthermore, it is influenced by many different factors, any one of which can serve to "shut it down."

I chose to depict a basic systems-type model, which has inputs, throughputs (or process) and outputs. The input for this model is an opportunity. That is, a situation which allows the leader the opportunity to influence mission accomplishment through action different from that originally instructed. The throughput of the model is the decision-making process itself--the thought process in the leader's mind. This series of



**Figure 1: A Decision-Making Model of Initiative**



questions, which I will refer to as "screens," was developed from the facilitators and inhibitors noted in the previous section and will be developed in further detail shortly.

If we are going to depict the situation as input in the model, isn't it also logical to input the individual's personality traits or characteristics into the model? After all, individual differences clearly affect the likelihood that we will display initiative. It is important to note, however, that this model depicts the decisions with a single individual's mind. Individual differences will be transparent unless the model is applied to ascertain why, given the same situation, some people will display initiative and others will not. I believe that the individual personality differences contribute to the decisions made in the model. While not highlighted by my model, neither are individual differences ignored or wished away.

According to this model, there are three possible outcomes: initiative, recklessness, or inertia. In order for a rational and committed leader to display initiative, that individual must be able to answer "yes" at each of the decision-making nodes displayed. Conversely, this rational decision-making model dictates that a leader who answers "no" at any of the five screens will not display initiative. The product in this instance is "inertia". Note also the existence of "dysfunctional initiative," or "recklessness," an undesirable outcome.

This otherwise fairly elegant hypothesis was somewhat muddled by a subsequent realization that allowance would have to be made for the individual who displays initiative in spite of the prohibitive personal risk involved in an action. This particular behavior was accounted for only by creating a second path to initiative. I labeled this decision "swordfalling," a term often used to describe someone who feels so strongly about an issue that they are willing to risk their career.

A reasonable criticism of my approach thus far might take the following form: As long as we agree on what initiative looks like, then why is it necessary to go through all

these elaborate mental components? After all, ultimately it is action, not thought, which wins battles. I agree! However, initiative is the very fragile product of a host of contributing factors. If any one factor is missing, initiative will not be displayed. Determining the source of the problem will help us prescribe the appropriate solution. A doctor who uniformly prescribes Kaopectate to all patients complaining of abdominal pain will eventually have to answer for a burst appendix, and will hopefully be barred from practicing.

Since the labels I have chosen for the five screens (recognition, responsibility, alternative, confidence, and personal risk) may not adequately communicate what decision is made in each screen, it is necessary to describe each of these screens in greater detail. I will describe and illustrate each screen by using examples. Most of these examples will be derived from the German experience, simply because my review of the literature suggests that the implementing principles of *auftragstaktik* bore a close relationship to the screens. Since my model was largely inspired by an understanding of *auftragstaktik*, this should not be surprising. After a review of each of the screens, we will follow with an attempt to bring the entire model to life by providing a current illustration.

### Screen 1: Recognition

For a leader to display initiative, he or she must recognize that there is an opportunity to display initiative. This screen is articulately explained by Captain Robert Maginnis in his article on the ideal independent small unit leader, who can "deal with ambiguous situations on the battlefield, process bits and pieces of information . . . . He's great with puzzles and good at painting a mental picture around an idea."<sup>7</sup> Such a soldier will be able to recognize when a situation is unfolding according to plan, and when it is not.

Understanding the "bigger picture," the commander's intent, is essential in this screen. General Friedrich von Mellenthin, Chief of Staff for the Wehrmacht's 5th Panzer Army, which fought on the WWII Russian front, notes: "The follow through of an order requires that the person to whom it was given thinks at least one level above the one at which the order was given."<sup>8</sup> Similarly, General Richard Simpkin noted that the root of *Auftragstaktik* "lies in the sharing of ideas and interpretations by minds well-attuned to one another."<sup>9</sup> Again, the essential skill is the ability to understand how the commander wants a plan to proceed, and being able to recognize when events are not unfolding according to plan. A leader must be aware enough to recognize, and knowledgeable enough to answer, the first question: do I recognize the need for initiative?

#### Screen 2: Responsibility

After a leader recognizes the need for initiative, he or she must then take responsibility for action. The Germans emphasized this attribute, which they called *verantwortungsfreude* (joy in responsibility).<sup>10</sup> The German Field Service Regulations of 1933 "stressed that the noblest quality of a leader was his willingness to assume responsibility."<sup>11</sup> Current *Bundeswehr* doctrine continues to emphasize mission-oriented command and control techniques in order to encourage the subordinate's willingness to share responsibility.<sup>12</sup> In the US Army, this screen might sound familiar in the form of General Maxwell Thurman's personal motto: "When in Charge, Take Charge!"<sup>13</sup>

#### Screen 3: Alternative

It is not enough to recognize a need to display initiative and take responsibility for it. The leader must be capable of coming up with at least one alternative course of action to the one currently in effect. Technical and tactical competence are the critical skills for this screen.

Needless to say, the ability to negotiate this screen is largely developed in professional military training and education. Although the Germans applied *auftragstaktik* with good results in the opening campaigns of the First World War, high attrition necessitated the employment of increasingly less experienced and trained officers. These officers were less capable of employing *auftragstaktik*, and its application began to wane.<sup>14</sup>

As noted earlier, creative or innovative skills are not synonymous with initiative. Such skills are not a replacement for job competence. A rather "unimaginative" but competent course of action can still lead to a successful display of initiative. However, these skills might increase a leader's ability to produce a viable alternative course of action, and they should not be dismissed.

#### Screen 4: Confidence

After developing an alternative plan, the leader who develops that course of action has to determine that his or her alternative plan is an improvement over the original or current plan. In a sense, this screen consists of a cost/benefit analysis of which alternative is most likely to accomplish the mission for higher headquarters at the least cost. Embedded in this screen is the notion of both self-confidence and trust in the chain of command. Ideally, if a leader is to proceed through this particular screen, enough self-confidence must be available to overcome blind faith in the original plan. Hence, a young, insecure leader, or one who worships his or her commander as omniscient, may not get beyond this screen.

#### Screen 5: Personal Risk Analysis

In addition to the above "mission" cost/benefit analysis, the leader must perform a "personal" cost/benefit analysis. It is in this last screen that issues of a "zero defects" command climate and careerism are embedded. In the Wehrmacht, mistakes were

considered leniently, for *auftragstaktik* stressed that inaction was worse than the wrong action.<sup>15</sup> As Major John T. Nelsen described it:

No opprobrium was associated with failure resulting from prudent risk-taking by the "thinking leader." When a leader displayed initiative, yet failed to accomplish the mission, such setbacks were simply the "breaks of war."<sup>16</sup>

The preceding explanation of the five screens is not an attempt to "prove" the model, nor to suggest that others were successful because they consciously used this model or a similar approach. In fact, I do not want to set the unrealistic expectation that this model will be proven or disproven through research. The immediate contribution this model makes is to provide us with a basic blueprint for understanding how initiative either flourishes or fails--this blueprint will help give shape and organization to our exploration.

#### An Illustration of the Model

In order to better understand the utility of the model in explaining the relevant initiative-related decisions that face junior officer, let's create an example of a situation where initiative might be called for, and illustrate how the various components of the model would correspond to the progression of the scenario.

Let's imagine 1st Platoon of A Company, 1-52 Mech Inf. Only an hour ago the company commander (CO) issued a verbal fragmentary order (FRAGO) which gave 1st Platoon the mission of holding the hill during an expected attack by a motorized rifle company. This mission was not expected to be a problem, since 1st Platoon's battle position was likely to be bypassed as the enemy attacked the 2nd Platoon's battle position to the north. 2nd Platoon was to withdraw when hit with the enemy's main effort, while 1st Platoon would support the withdrawal with flanking fires. This would take the enemy by surprise, and would defeat him so that he could not exploit the penetration offered by the other platoon's withdrawal.

### Given an Opportunity

Shortly after the FRAGO was issued, an artillery barrage hits 1st Platoon's battle position, and while casualties were light, the commo wire to company headquarters was cut. As the barrage lifts, the platoon leader peers through his binos at the expected enemy avenue of approach to the north, and sees no enemy march column. However, as he scans the horizon to the south, he sees at least 25 T-72 tanks in a wedge formation heading directly for his position; they are approaching anti-tank missile range. Not far behind the tanks, he observes several other vehicles of different types.

### Illustration of Screen 1: Recognition

Let's consider the lieutenant's ultimate decision and action in terms of the model. First, does the lieutenant recognize that those other vehicles behind the tanks include engineer vehicles, self-propelled and rocket artillery, and a regimental headquarters? Does the lieutenant recognize that this indicates that his sector appears to be the target of the main attack, even larger than that expected against the 2nd Platoon? Does the lieutenant recognize that the original plan is seriously corrupted by the unexpected enemy course of action? If he doesn't, he will continue operating off his original set of orders, and inertia occurs. If he does, the lieutenant will proceed to the next screen.

### Illustration of Screen 2: Responsibility

Let's assume that the lieutenant does understand the implications of this new situation. At this point, the lieutenant must decide if he should take responsibility for doing something. He attempts to raise the CO and the other platoons on the company net, but it is being jammed and his Radio-Telephone Operator (RTO) can't establish contact. He can plainly see the 2nd Platoon position about 1200 meters to his north; do they see what is happening? How will they react? Is it really his job to attempt to change the plan? Isn't someone higher up seeing what is going on, and in the process of issuing revised

orders any second? Did his previous training stress the need for him to take responsibility? If the lieutenant convinces himself that there is a problem, but it's not his responsibility to fix, he will still continue operating off his original plan to hold his position, and inertia will occur.

#### **Illustration of Screen 3: Alternative**

If the lieutenant does recognize the problem, and does decide that he must take responsibility to act, he must now be able to devise an alternative plan. What else can he do? In this situation, there is a fairly obvious alternative: withdrawal. If the lieutenant were unable to come up with an alternative plan, the result would be inertia.

At this point in the decision path, the lieutenant may act on his alternative plan--without assessing its merits by doing a personal and mission risk analysis. In colloquial terms, he may be going off half-cocked. This is a form of dysfunctional initiative which I have labeled recklessness on the model, which implies action before thought.

#### **Illustration of Screen 4: Confidence**

Now, unless the lieutenant is reckless, he must evaluate his alternative action. If he gives up this battle position without a fight, will he be compromising the company, or even the battalion defenses? What is the likelihood that 2nd Platoon will recognize the change, and then support his withdrawal with fires? Will withdrawal save his platoon, or expose it to even greater danger from enemy air and artillery? If he lacks confidence that his alternative plan is better than the current plan, he may indeed settle for operating off an original plan of action.

#### **Illustration of Screen 5: Personal Risk**

Finally, the lieutenant must assess the personal consequences of his actions. What does his experience in peacetime tell him about whether he can trust his commander to



understand and accept his initiative? If he decides to move without specific authority from the CO, will he be relieved for disobeying orders? If he elects to stay here, will he be killed or captured? Will he be relieved for trying to defend this position after the enemy did something we didn't expect? Does he normally operate as a passive subordinate only, with his commander calling every play? Will his chain of command back him up for altering the plan, or will they cite his action as an example of cowardice or indiscipline? Again, the lieutenant must decide whether to display initiative by ordering his platoon to withdraw, or allow the inertia of the original plan to tie his hands with inaction.

There is also another possibility. Depending on the moral courage of the officer, he may choose to withdraw even if he expects that the personal consequences will be devastating, simply because he believes the withdrawal is more likely to contribute to ultimate mission accomplishment. I labeled this particular decision path "sword-falling" in order to invoke an image of the possibly suicidal nature of such a decision.

It might be easy for someone familiar with tactical problems to be critical of this scenario; such a person might suggest that the CO's plan was poor from the start, or that the lieutenant should never have allowed himself to get in this dilemma. On a perfect, "frictionless" battlefield, there probably is no need for junior leader initiative in the first place; the commanders will be perfectly competent, if not clairvoyant, all equipment will work as advertised, the enemy is incapable of unpredictable behavior, and subordinate leaders can be relegated to the roles of cogs in the victory machine. Until we achieve such standards, dilemmas such as the one I have provided will continue to challenge our junior leaders.

Now that we have proposed a model for understanding initiative, we will construct a research design which will allow us further insights into the notion of initiative, and the relationship between this model and initiative

### Research Design

I decided that a method of directly assessing current levels of initiative in junior officers was required. Furthermore, as my research had led to the formulation of a decision-making model for initiative, I was determined to further investigate the factors which can inhibit initiative. Due to lack of resources and time, I eliminated the possibility of behavioral observations and assessments, as had been done at NTC.

I determined that the next best data, then, were officers' direct reports of the degree of initiative being displayed by junior officers. Since bias must always be a major concern in opinion-based research, I resolved to devise a questionnaire that would allow me to assess to what degree various forms of bias might exist. I concluded that new research could illuminate the following questions:

1. What is the officer's perception of the amount of initiative he or she displays?
2. What is the officer's perception of the amount of initiative his or her officer subordinates display?
3. For both the officer and the officer's subordinates, what factors limit the amount of initiative displayed?

The research method consisted of a self-administered individual survey which solicited junior officers' perceptions of the answers to these questions. This 30-question survey (see Appendix 1) contains minimal demographic questions, and single question assessments of the officer's own, subordinate, and peer initiative. In order to help test the hypothesis that there are independent components which serve to stifle initiative, a total of 24 items on the survey assess junior officer perceptions of the degree to which 12 different factors (12 for subordinates, and 12 for themselves) affect the display of initiative. These 12 factors are based upon the 5 screens of the model. The relationship between the survey and the model will be detailed later in this section.

In developing the survey, we must consider both the questions and the answers. Generally, the most readily interpretable form of responses are "interval" data, in which each possible survey response has some quantitatively absolute value. The height and weight of a subject would be an example of interval data. However, since there is no standard unit of measurement for initiative, the best yardstick that can be applied is relatively subjective. Therefore, other than the three demographic questions on the survey, the questions were framed in Likert (fixed-alternative) scales, with five possible (and mutually exclusive) alternatives: (1) almost always, (2) often, (3) sometimes, (4) infrequently, (5) almost never.

Such "ordinal" data can be difficult to objectively interpret. For instance, how much is "often?" Furthermore, will "often" mean the same thing to different subjects? However, since the data imply some interpretable relationship when compared against other data, we may employ a special form of statistics known as "non-parametric" statistics to analyze the data.

A non-parametric statistical test varies from a parametric statistical test in that the non-parametric test does not assume certain conditions about the population from which the data was drawn. For instance, non-parametric tests do not assume that the data are in a normal (bell-shaped curve) distribution.<sup>17</sup>

Aside from its non-parametric nature, these data may also be characterized with regard to whether they are either independent or related. The answer is "both," depending on what comparisons or hypotheses are being investigated. For any comparisons between the answers of different officers, the data are independent. For any comparison of the answers within a single officer's survey, the data are related, and we cannot use tests which assume that the various data are independent.

For example, Captain A responded to the question asking him to rate the degree to which he displays initiative, and to another question asking him to rate the degree to which

his officer subordinates display initiative. These are related data. On the other hand, were we to compare Captain A's rating of his initiative with Captain B's rating of her own initiative, we could then assume that these data are independent. The importance of this distinction will become more clear, as our statistical methodology is built on assumptions about the relationships between the data, as well as its non-parametric nature.

Part of the survey design is intended to explore the various factors which might inhibit initiative. Therefore, it is necessary to develop survey measures which evaluate the various components hypothesized in the decision-making model of initiative. The relationship between the model and the survey is illustrated in Figure 2.

It was fairly easy to use the wording of the five screens to develop a set of five factors which inhibited initiative. The relationship between each of these five factors (which I have labeled "primary measures") and the model are indicated by the solid arrows on Figure 2.

However, these words were mine, and reflect a hypothesized relationship which may or may not accurately reflect reality. Furthermore, even if the model is fundamentally correct, the wording of these five primary measures might not effectively capture the intent of each of the screens for every person. Therefore, I elected to add a "secondary measure" for each of the five screens. I hoped that this secondary measure, while (by definition) not as clearly associated with the model as a primary measure, would lend additional insight into the various inhibitors.

In designing the secondary measures, I felt more free to use colloquial terms which might capture the spirit of the screen, such as "big picture," "low profile," and "zero defects." However, in doing so, I also recognized that these secondary measures might also overlap on different screens. For instance, "I wanted to keep a low profile" is a secondary measure for Screen 2 (responsibility), but the language might suggest to some

that a problem exists with an unforgiving command climate. Hence, this measure might also register an inhibitor which my model associates with Screen 5 (personal risk).

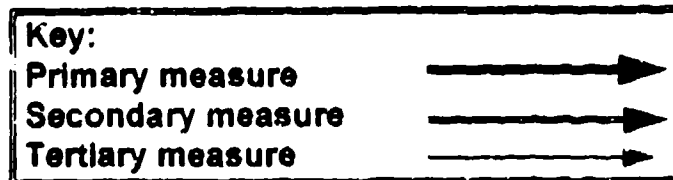
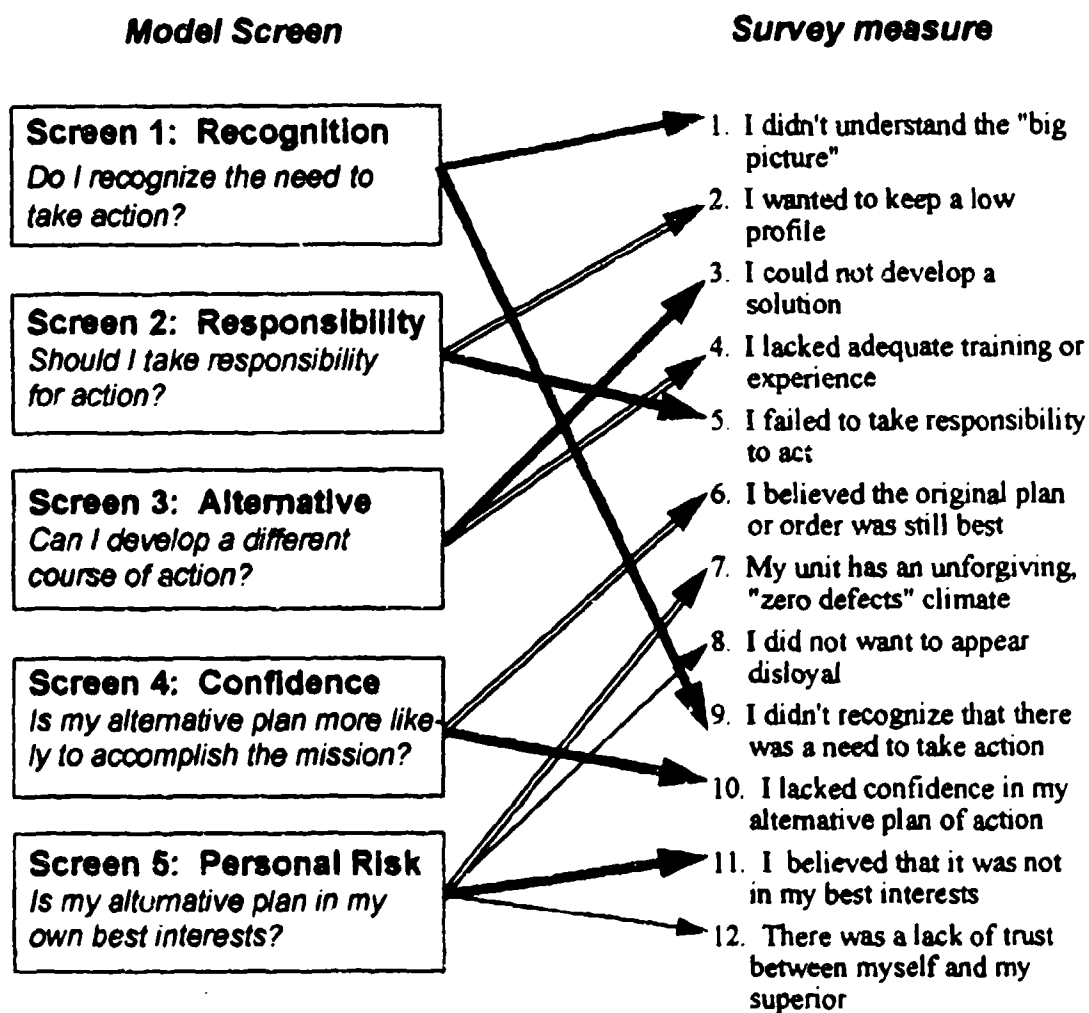
After developing the secondary measure for each of the screens, I again reviewed the literature for the most commonly described inhibitors, in an effort to ensure that I had created a fairly inclusive list. When I compared my ten measures against such a review, I felt that there were two additional inhibitors which deserved to be included among my survey. These inhibitors dealt with the appearance of disloyalty and the degree of senior-subordinate trust.

I had generally considered these issues to be most closely linked to Screen 5 (personal risk). This relationship is consistent with the weighting evident in the literature reviewed: a tendency to attribute problems with initiative to inhibiting command climates. These additional inhibitors didn't seem to fit the definition of Screen 5 as closely as the primary or secondary measures, so I have labeled them "tertiary measures."

The insertion of tertiary measures raises complicated issues. For instance, adding additional factors for one screen without also adding to the other screens unbalances the design, and some forms of analysis may lead to erroneous conclusions about the relative weights of the various measures. Also, why are these tertiary measures more difficult to place in the model? One possible answer is that the model itself is incomplete. Nevertheless, with these concerns in mind, I added the tertiary measures, for a total of twelve inhibiting factors.

The manner in which I resolved the tertiary factor issue may attract the criticism that I have not placed much faith in the correctness of my model. This is essentially a correct assessment, although it need not be a criticism. Fully aware that I am proposing a fairly new look at a complex concept, and unable to build upon or adjust from earlier research surveys with similar intentions and designs, it is highly unlikely that any first

**Figure 2: Relationship between the Model and the Survey**



attempt will succeed in empirically demonstrating the "correct" approach to understanding initiative. In fact, my intention is to avoid restricting my methodology to the possible blinders which any model might incur on reality. I sought to strike a balance between the competing desires to use the model and be able to interpret the results in the event that the model subsequently reveals itself to be an impediment to our basic research questions. In a sense, I feared "putting all my eggs in one basket."

Hence, while I have proposed a decision-making model which can generally explain how different inhibitors might impact on initiative, I do not want to set the expectation that this model will be confirmed by the results of a single study based on an unvalidated survey. It simply can't be. Therefore, with regard to these possible inhibitors, our analysis and conclusions must be conducted in the spirit of discovery, not "proof." However, this thesis will take a step in the direction of better understanding what the components of initiative might be, with or without a model.

The research population was to be as representative a sample as possible of junior officers. I obtained permission to administer the survey to 273 company grade officers who were attending the Combined Arms and Services Staff School (Class 93-4) at Fort Leavenworth, Kansas. These officers' responses will be relevant since they represent a viable random cross section of company grade officers with a variety of different experiences.

In the instructions for the survey, the officers were informed that participation in this study, which took about 10 minutes to complete, was voluntary. All responses were be confidential, and no attempt was made to match responses with individuals. Questionnaires and mark-sense forms were distributed to each of 23 eleven- or twelve-student staff groups, and the staff group leaders were asked to have the surveys returned one week after they were distributed.

We noted in Chapter 2 that Major David Cowan made an interesting discovery in his interviews: officers generally reported that they felt somewhat or severely restricted, yet all but one thought that he himself was a decentralized leader, tolerated mistakes, and granted subordinates extreme latitude in the performance of their duties. Therefore, this survey will attempt to add or remove support for this finding by comparing the degree of difference between the perceived initiative of the officer and the perceived initiative of his or her subordinate officers.

We began this chapter by developing a decision-making model of initiative, and illustrating how such a model might help us understand what components act to either encourage or stifle initiative in junior officers. Using this model as a framework, we then developed a research survey designed to assess the degree of initiative which junior officers display, as well as what components might stifle initiative. Analysis of the survey results, and conclusions which can be drawn from that analysis, will be the focus of Chapter 4.



## CHAPTER 4

### ANALYSIS

In Chapter 2, the literature review led us to tentatively conclude that we are not doing as well as we should be in developing initiative in junior leaders, although there appears to be some variance of opinion as to how rampant this problem is, and who or what is to blame.

In Chapter 3, we integrated various inhibitors of initiative into a model of initiative as a decision-making process. This model, which helped us better discriminate between the various components that might affect initiative, gave us a better idea of some of the issues that might be further explored in a new empirical study. We then developed a survey instrument that would assist us in studying the effect of these inhibiting components, as well as allowing us to get an overall perception of the degree to which junior officers report that they are displaying initiative.

In this chapter, we will discuss the results of this survey, and use various statistical techniques to answer the following research questions and test the following hypotheses:

- A. What is the officer's perception of the amount of initiative he or she displays?
- B. What is the officer's perception of the amount of initiative his or her officer subordinates display?
- C. Hypothesis 1: Officers will rate themselves as more likely to display initiative than their subordinates.
- D. Hypothesis 2: An officer's perceptions regarding initiative can be affected by inconsequential factors.

- E. For both the officer and the officer's subordinates, what factors limit the amount of initiative displayed?

This chapter will demonstrate that the surveyed officers generally rate themselves and others as likely to display initiative (although they rate themselves higher than their subordinate officers and peers). Furthermore, an officer's perception of initiative is a fragile concept (like most psychological measures); it is easily affected by seemingly inconsequential factors. This may seem like a tangential issue, but we cannot presume to rely on any reported perceptions of initiative to draw any conclusions unless we understand the limitations of such approaches. We will also discuss the inhibiting factors that are associated most clearly with a lack of initiative, and use this information to draw tentative conclusions about the utility of our model.

#### Survey Administration

The survey was administered from 1-10 February 1993. This may be relevant in understanding the context and climate under which subjects responded to the survey. President Clinton had just taken office, Selective Early Retirement Board (SERB) selections had just been released, and among the officer corps, there was a general sense that the "downsizing" of the Army may have only just begun. Hence, survey respondents were being constantly reminded that there was declining job security for a career Army officer, a possible demoralizing factor. It is not known how, or if, this issue may have affected survey results, but it is conceivable that increased dissatisfaction with one's current career might contribute to more negative ratings about career experiences.

By 10 February, 249 completed responses had been returned, for a response rate of 91.2 percent. The predominant year group of commissioning represented in the population was 1986 (39.8 percent), with a total of 83.2 percent of the population coming from year groups 1985 through 1987. Hence, about five out of six of the survey respondents had been commissioned 6 to 8 years ago.

Regarding representation of branch groups, 47.4 percent were from the combat arms; 17.8 percent combat support; 22.3 percent combat service support, and 12.6 percent from non-OPMD managed branches (Chaplains, JAG Officers, MDs, etc.). The Army-wide representation of all captains is 37.2 percent combat arms, 17.4 percent combat support, 18.6 percent combat service support, and 26.8 percent non-OPMD.<sup>1</sup>

Hence, when compared to the overall Army population of captains, combat arms officers were significantly overrepresented, and non-OPMD officers were significantly underrepresented, in CAS3 Class 93-4. This raises the issue of how confident can we be in applying our findings to a population beyond the sample population. This issue, known as generalizability, is the subject of the following section.

#### Generalizability Issues

As the previous section demonstrated, we must address the manner in which any findings from the survey can be interpreted. Generalizability, or the degree to which we can expand our conclusions beyond the group surveyed, is always an issue in science. There are two basic concerns that may limit the extent to which we can generalize any research findings: representativeness of the population and reaction to the survey.

The CAS3 class was chosen because of its representativeness of a larger population of all Army captains with about 6 to 9 years experience. There are no selection criteria for CAS3; every officer, regardless of branch, wishing to remain in the service and be competitive for higher rank must attend this course. This method of selection contrasts with the CGSOC class, where approximately 50 percent of senior captains and majors attend, based upon manner of performance and potential. Hence, surveys administered to the CGSOC class are significantly less generalizable to the population of Army officers with 10 to 15 years of service, since any results would only reflect a specific subgroup that ostensibly differs from the non-selected subgroup. Nevertheless, as we have already seen,

the CAS3 class was not a perfect representation of the Army-wide population of captains, at least in regard to branch groupings.

This survey was not based on a sample of the population; it was based on the population itself, the CAS3 Class 93-4. Therefore, in the language of statistics, we need not make inferences about the characteristics of the population, as we know the characteristics of the population. But what can the results tell us about anyone outside CAS3 Class 93-4? How far can we generalize? There is no hard and fast rule for this. The further we expand the generalization, the more tenuous it becomes. For instance, because a CAS3 class appears to be the best available representative sample of larger population of all Army captains with 6 to 9 years service, it is my opinion that it is reasonable to generalize these findings to this larger group. It would be unreasonable to generalize to all company grade officers, and absurd to generalize to all Army officers.

However, even my proposed generalization is subject to criticism: are there differences between the winter CAS3 classes and the summer CAS3 classes? Officers assigned to USMA and ROTC instructor duty generally can attend during the summer only, so as to accommodate graduate school or cadet training calendars. Should we expect a difference if we administered this survey in the summer? We can only speculate and propose that future research attempts to circumvent this problem by either testing several CAS3 classes and testing for differences between the classes, or by offering the survey to a wider audience throughout the Army. For our current purposes, we must regard the sample of a single CAS3 class as a limitation.

In order to ensure that survey respondents were talking about the same thing when they responded to the questionnaire, I provided a definition of initiative three times on the survey. As originally developed in Chapter I of this thesis, initiative is defined as taking action to best accomplish a mission without waiting for new orders or supervision. Any interpretation of this survey should be made with this particular definition in mind, as the

survey results can offer no insights into the concept of initiative defined in any other manner.

Any researcher must be concerned with the effects of the research itself on the data obtained. Simple surveys can cause bias by forcing subjects to respond with a limited range of responses, by suggesting that certain responses are desired by the researcher, or by simply causing the respondent to realize that there are possible answers that had not previously occurred to him or her.<sup>2</sup> In fact, one of the hypotheses tested later in this chapter assumes that the survey itself is a source of bias, and attempts to test whether changing the order in which the questions are asked will affect the respondents' answers.

Furthermore, others have pointed out that this survey has an apparent negative flavor to it, since it appears to presume that there is a problem with initiative. This bias might be inferred by noting that I ask what components inhibit initiative, but do not ask what components encourage it. This bias was the result of general conclusions drawn from the literature review, in which I generally concluded that there was a problem (although to what degree unknown) with initiative. In turn, I conceptualized the problem from a standpoint that reflected this dominant bias. Hence, I developed a model that has functioning screens. Perhaps, had the literature painted a more positive picture of initiative, I would have been led to view the phenomenon as one that is amplified by certain enhancers, rather than inhibited by certain screens.

In effect, one could argue that the survey "stacked the deck" against positive perceptions about the amount of initiative which junior officers are displaying. However, given that this bias cannot be either erased or ignored, it is fortunate that the answers to the first two research questions are still interpretable in light of this fault. Had officers rated initiative as low, a feasible alternative explanation for my findings would have been that the instrument itself was a source of bias. However, since this turned out not to be the case, the bias should not be a reason to reject the findings. Furthermore, since the

perceived bias was constant across both forms of the survey, conclusions drawn from comparing the two forms have the advantage at least of holding the bias constant.

It should be apparent from the preceding discussion that I learned lessons and gained new insights during and after the administration of the survey. For better or for worse, the discovery process did not end midway through Chapter 3 of this thesis. Where various complications, confounds, and just plain errors arose in my methodology, I will attempt to identify the implications before rendering interpretations of the findings.

In the final chapter, I will provide recommendations for future research; this section is not based upon the expectation that future researchers are bound by my design. However, in the event that future researchers intend to employ my methodology as a starting point, Section IV of Appendix B details specific survey validation issues associated with this survey.

### Findings

It is my intention for this thesis to be accessible and interesting reading for the average Army officer. Therefore, the remainder of this chapter will focus on analysis of the findings. However, if I am to satisfy my obligation as a researcher, it is necessary that I explain and support the statistical methodology used to explore the various research questions. Therefore, when a greater level of depth is required, the reader will be referred to the appropriate section of Appendix B for more technical information about statistical inferences, complete results, and support for the findings.

Throughout the following discussion, the reader may find it useful to refer to the actual surveys in Appendix A. There are two separate versions of the survey that are identical in content but vary in the order in which the questions are presented. The reason for introducing this order difference, and how it affected the results, will be explained in detail shortly.

We will begin our data analysis by employing a frequency table to summarize the answers to two of the survey variables: an overall rating of the officer's own likelihood to display initiative, or "self initiative," and an overall rating of the officer's subordinates' likelihood to display initiative, or "subordinate initiative." No statistical manipulations are performed on the frequency chart; it is simply a descriptive representation of the total number of officers who responded to the above variables with each of the five possible, mutually exclusive, values (almost always, often, sometimes, infrequently, almost never).

The first few issues we will explore, as well as the last few, I have labeled "research questions" rather than "hypotheses." Research questions ask a question without speculating about the answer. Since research questions do not try to predict an answer that would conform to some theory or model, any findings are "exploratory," and we must guard against using such findings as proof of any preconceived notions.

In other words, the scientific method prevents us from looking through the data until we find some pattern, then attempting to use the same data to "prove" the existence of something we encountered by accident, since this would be circular logic. This is not to say that exploratory data analysis and "post-hoc" (after the fact) conclusions are not useful; it simply means that we must use caution in interpreting any such findings. This is the nature of inductive research—beginning with observations, then moving to theory.

The principles of deductive research suggest that we do not need to be quite as tentative when investigating a hypothesis. Hypotheses imply that a certain relationship is expected, and a procedure known as significance testing will be used to determine if, in fact, the hypothesized relationship can be shown to exist. If we can demonstrate that the hypothesized relationship is apparent in the data, and that the appearance of that relationship cannot reasonably be expected to have occurred simply by chance, we may then legitimately use such a finding as support for our preconceived theories. Hypothesis testing may be thought of as "confirmatory" data analysis. Understanding the difference

between confirmatory and exploratory data analysis is critical if we are to ensure that this analysis does not violate commonly accepted principles of scientific integrity.

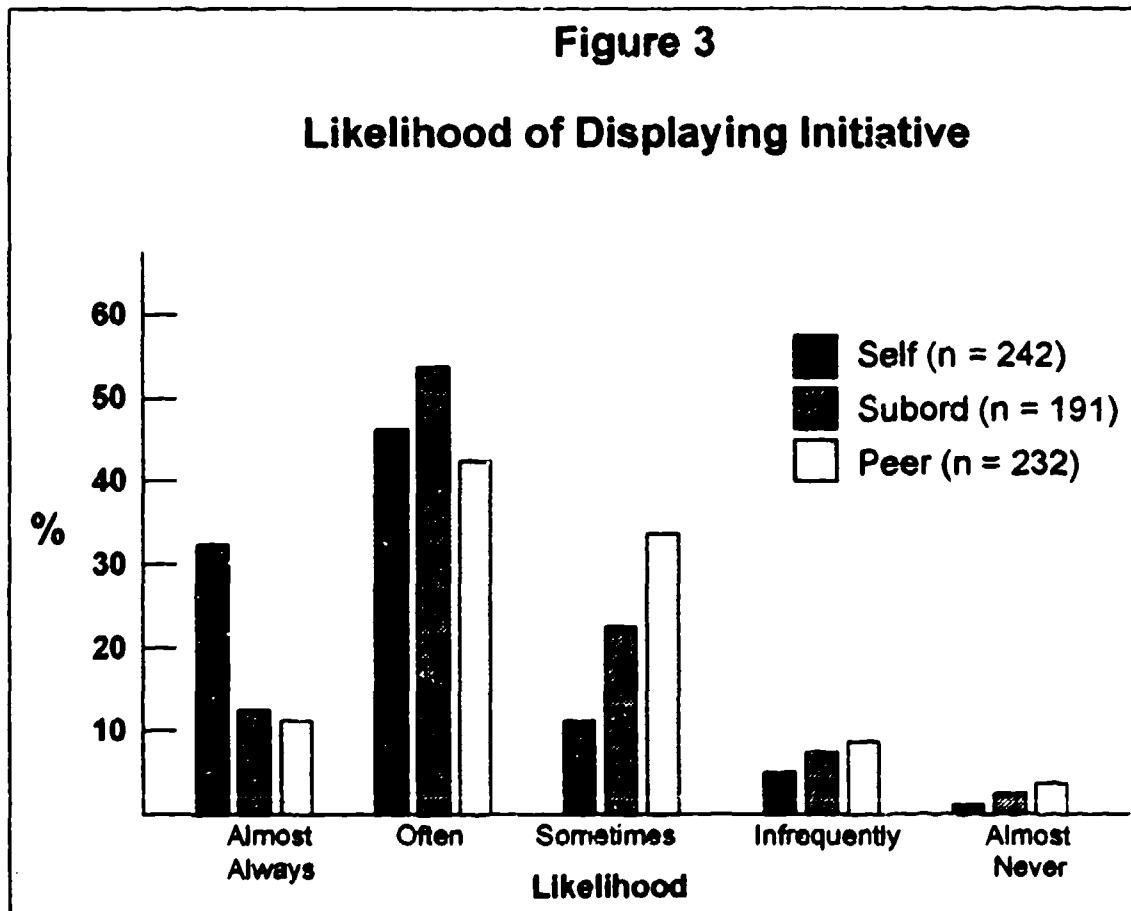
Research Question: What is the officer's perception of the amount of initiative he or she displays? This question was assessed by measuring responses to either question #4 of Survey Version 2 or #17 of Survey Version 1, which asked: "In your most recent assignment, how often did you display initiative? [Initiative is defined as taking action to best accomplish a mission without waiting for new orders or supervision.]."

The result, graphically portrayed in Figure 3, suggests that despite many claims that initiative is not being developed or permitted in our junior officers, the degree to which the sampled officers report displaying initiative is encouraging: 33.1 percent responded that they "almost always" displayed initiative, and a further 48.8 percent reported that they "often" displayed initiative. The most frequent response (mode) to this question was "often."

Research Question: What is the officer's perception of the amount of initiative his or her officer subordinates display? This question is assessed by measuring responses to either question #4 of Survey Version 1 or #17 of Survey Version 2, which asked: "In your most recent assignment, how often did your officer subordinate(s) display initiative? [Initiative is defined as taking action to best accomplish a mission without waiting for new orders or supervision.]."

The result, also portrayed in Figure 3 is still encouraging: 11.5 percent of the officers reported that their subordinate officers "almost always" displayed initiative, and 54.5 percent reported that their subordinate officers "often" display initiative. While these figures indicate that subordinate officer initiative is perceived as being somewhat less likely as self initiative, the most frequent response (mode) to this question, once again, was "often."





Before we go any deeper into analysis of the data, we should recognize that we ostensibly have an answer for our first and most basic research questions: it appears that the junior officers surveyed generally perceive that they and their subordinates often display initiative. Furthermore, if a possible negative bias in the wording of the questionnaire had caused respondents to rate initiative more negatively, the "unbiased" answers to these first two research questions might actually result in even higher ratings of initiative. Therefore, the possible bias in the survey instrument does not change our basic conclusions on these questions. Although it might in fact weaken the strength of our conclusion, it does not weaken the direction.

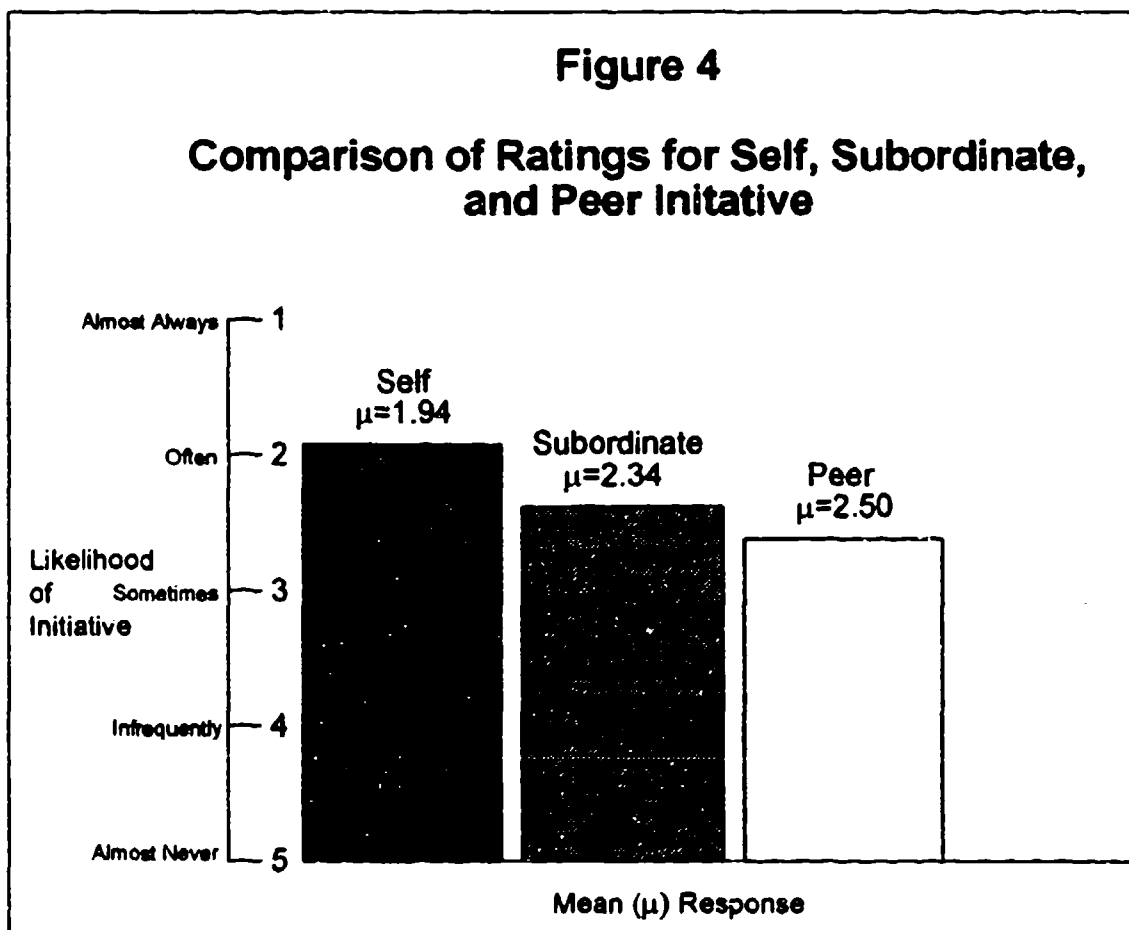
We must not lose sight that the source of these data is from 249 different opinions. Even if we were to make the optimistic assumption that all 249 respondents understood and used the definition of initiative that was provided, we have no guarantee that what constitutes "often" for one officer will mean "often" to the next. This is one of the most challenging aspects of dealing with the subjective measures of a psychological measure. Therefore, before moving on to investigate the components of initiative, we will attempt to get a more complete picture of the objective "reliability" of our measurement of initiative. We will accomplish this by testing two hypotheses that explore possible biases in ratings of initiative.

Hypothesis 1: Officers will rate themselves as more likely to display initiative than their subordinates.

A comparison of the average self and subordinate initiative ratings in Figure 4 suggests that, as Major Cowan had reported in his interviews,<sup>3</sup> surveyed officers tended to rate themselves as displaying initiative more frequently than their subordinates. However, because this difference could have occurred by chance, we cannot conclude that there is a valid difference by simply "eyeballing" the data. In order to test this hypothesis, we will need to use a statistical procedure to determine whether the ratings of the officers' own initiative is really different from the ratings of the subordinates' initiative.

Our hypothesis, derived from Major Cowan's findings, predicts that officers will rate themselves as more likely to display initiative than their subordinates. The alternative (or "null") hypothesis, then, would be that there are no differences between the ratings of self and subordinate initiative.

The general procedure used to determine whether a hypothesis can be supported is known as "significance testing," as we are determining whether the data support the conclusion that there is a statistically significant difference between the data. First, we



must determine what constitutes significance. In the social sciences, the most commonly accepted levels of significance are .05 and .01. In other words, a comparison between two variables should not reveal a predicted pattern to occur by chance any more often than one survey out of twenty for a "p-value" of .05, or one in one-hundred for a p-value of .01. If, after passing these significance tests, the predicted pattern does in fact occur, we are willing to conclude that the pattern represents an actual difference and is not simply due to chance. A mathematical demonstration of the concept of statistical significance is provided in Section II of Appendix B.

Since this portion of the analysis is confirmatory data analysis, we will adopt a p-value of .05 as the standard for accepting a hypothesis and rejecting a null hypothesis. In doing so, we are still accepting a .05 probability that demonstrated statistical support for the hypothesis is in fact due to chance. Later in the analysis, when we are engaged in exploratory data analysis, we will apply the more restrictive p-value of .01. Since exploratory data analysis is more exhaustive in identifying possible relationships between data, the lower p-value will reduce the likelihood of picking up "false positives" during the data analysis.

In order to test Hypothesis 1, we will compare the differences between each officer's rating of subordinate initiative compared to that officer's rating of self initiative, and then assess whether or not the pattern observed across all the responses would be expected to occur by chance less no more than 5 times out of 100. The results of the Wilcoxon matched-pairs signed-ranks test presented in Section II of Appendix B demonstrate that this standard of statistical significance was met (in fact, the test reveals it would occur by chance no more than 0.1 percent of the time). This finding supports our hypothesis: officers rate themselves as more likely to display initiative than their officer subordinates.

This conclusion is intuitively not very surprising. One plausible explanation for the observed difference in ratings is that we tend to see ourselves as "better" than others (assuming that there is a positive value associated with initiative). Another explanation might be that there is actually no inherent bias here, but that the officers are merely impartially reporting the fact that more junior subordinate officers are less willing or able to display initiative. In other words, couldn't this difference in ratings simply reflect a subordinate officer's lack of experience or confidence in displaying initiative? Although not originally anticipated to be a direction of study, these implications are worthy of a new

sub-hypothesis: *that officers tend to rate themselves as more likely to display initiative than peers and subordinates because of bias.*

This is a big step--the word "because" in a hypothesis implies a cause and effect relationship. Why assume that the observed differences are due to biases instead of the more reasonable and even logical hypothesis that these officers merely observed and reported real differences in their subordinates' willingness to display initiative, based upon their subordinates' lack of training, or experience, or anything else?

The earlier chapters of this thesis demonstrated that initiative is an emotionally laden, positively valued concept. Officers believe initiative is important, and that it is good. A wide variety of research in the social sciences demonstrates that we tend to assume we have more of such desirable qualities than the next person.<sup>4</sup> Ultimately, this notion is captured in a concept which psychological researchers have labeled a "self-serving bias," which allows us to shape our perceptions in such a way that we can do no wrong.<sup>5</sup>

If all we had were ratings of the officers' self and subordinate initiative, we could not isolate the cause of the observed differences. Fortunately,<sup>6</sup> the final question on the survey (#30 on both forms: "Finally, in your most recent assignment, how often did your peers display initiative?") asked the survey respondents to assess the likelihood that their peers display initiative, using the same definition and possible responses as the questions on self and subordinate initiative.

If there was some sort of self-serving bias in effect, we would expect the ratings to suggest that peers also display less initiative than the surveyed officers. If, on the other hand, the difference between self and subordinate initiative was due to the reduced capabilities of more junior officers, we would expect that the ratings for peers would be similar to those of the officer's ratings of their own initiative.

As can be seen in Figure 3 and still more clearly in Figure 4, respondents tended to rate their peers lower than themselves and even lower than their own subordinate officers. However, once again, significance testing is necessary before we can be assured that these deviations are not expected. We must test the hypothesis that initiative is significantly affected by a self-serving bias, against a null hypothesis that the differences between self ratings and subordinate ratings are functions of the subordinates' experience. Therefore, to determine if our hypothesis is true, we must present: (1) a test demonstrating that self initiative is rated significantly higher than peer initiative; and (2) a test demonstrating that peer initiative is not rated significantly differently from subordinate initiative.

In other words, if our hypothesis is true, we tend to rate ourselves as more likely to display initiative, but there is no evidence that we discriminate between the initiative displayed by others, whether they are our subordinate officers or our peers. Since we would normally expect that the subject's peers and subordinate officers differ in terms of experience, if nothing else, it would be a puzzling conclusion to state that there is no difference between peer and subordinate initiative. Puzzling perhaps, until we take into account the perceptual biases inherent in the human mind.

The proposed tests are reported in Tables 5 and 6 of Appendix B. Table 5 demonstrates that officers did rate peer initiative significantly lower than their own initiative. Table 6 demonstrates that officers did not rate peer initiative significantly differently than subordinate initiative. Therefore, the difference between self and subordinate ratings of initiative cannot be explained by differences in experience, since presumably an officer's peers, by definition, have more experience than an officer's subordinates. Hence, the sub-hypothesis that officers tend to rate themselves as more likely to display initiative than others, on the basis of a self-serving bias, is supported.

So what? The exploration of this sub-hypothesis was a diversion from the original route we laid out at the beginning of the chapter. We had already established that officers

rate themselves as more likely to display initiative than their subordinates. This additional work helped us understand why this occurred.

This finding is important, as we are beginning to establish support for a general conclusion that assessments of initiative, like other psychological constructs, are quite fragile. This may help us understand why different researchers have arrived at different conclusions. This will also certainly impact on our conclusions and recommendations, since we cannot talk about a concept if we cannot adequately define or capture what "it" is without also picking up a lot of other baggage. We will continue to gather support for this "fragility" case in the next hypothesis.

Hypothesis 2: An officer's perceptions regarding initiative can be affected by inconsequential factors.

The previous findings suggest that there is some pervasive bias in these ratings of initiative, and that these ratings tend to be affected by a self-serving bias. Is self-serving bias the only systematic bias, or are there other biases that affect ratings of initiative? Fortunately, this question had been anticipated, and a design mechanism built into the survey will allow us to further investigate the nature of this inconsistency. This experimental manipulation (the only experimental manipulation in the research design) was the creation and distribution of two separate versions of the survey. Both versions contained precisely the same questions; they varied only in the order in which the questions were presented.

On both versions, the first two pages consisted of instructions and three demographic questions (branch group, year group, and last assignment). On Version 1 of the survey, the third page (questions 4 thru 16) dealt with the initiative of the respondent's subordinate officers, while the final page (questions 17-30) dealt with the respondent's own initiative. On Version 2, this order was reversed. The purpose of this manipulation of question order was to determine if a different psychological "anchor" or "baseline," as

created by the third page, would cause some moderation in the responses on both the third and fourth pages.

If the concept of initiative is a relatively stable and clearly observed behavior, then it seems ridiculous to suggest that changing the order of questions on a survey might actually change the ratings of initiative. However, in the previous section, we demonstrated that the perception of "initiative" can be affected by a bias. Therefore, we will build on this finding by hypothesizing that a simple manipulation of question order would cause significant differences in the responses.

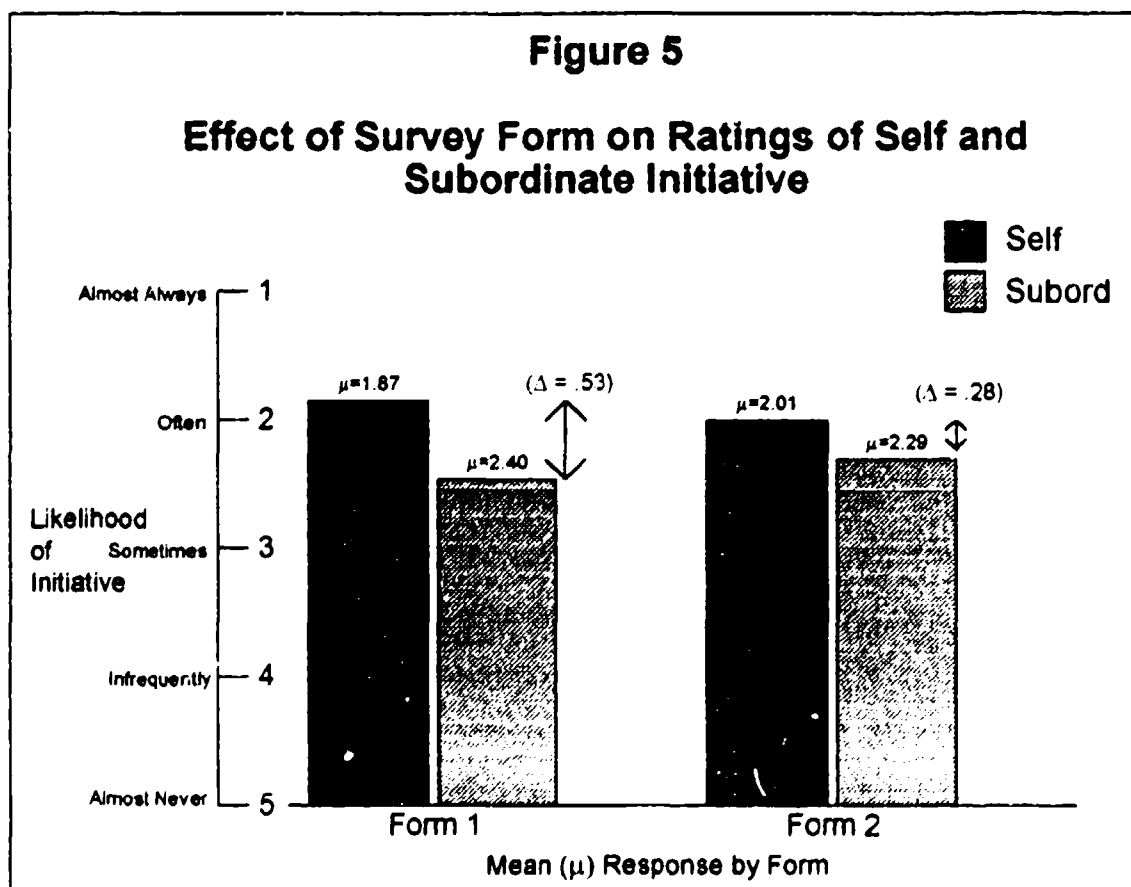
This difference would be largely due to the questions that attempt to define what components inhibit initiative, as many of them are factors for which the chain of command can be held responsible. For instance, on Version 2, an officer could assess his or her own initiative (question 4) as well as all the components that influence it (questions 5 thru 16) before turning the page and having to answer the same questions about his or her subordinates. On Version 1, the officer must first consider his subordinates' initiative while assessing which components inhibit it, recognizing that the respondent may be responsible for many of these components.

After considering his or her subordinates, the officer completing Version 2 may be considerably more humbled, in that he or she has a different frame of reference as a facilitator (or inhibitor) of initiative. This effect, known as the "priming effect" in the field of cognitive psychology, considers "the effects of prior context on the interpretation and retrieval of information."<sup>7</sup> If I were to give the hypothesized effect a name, it might be a "humility" effect. The effect is illustrated in Figure 5, where it appears that the version of the survey does affect the pattern of responses. Once again, we must turn to tests of significance for a compelling answer as to whether this observed pattern can reliably be said to exist.



Hence, we will compare the "within-subject" patterns for rating self and subordinate initiative on one form of the survey with these same ratings on the other form. This type of comparison is commonly known as a "between-subject" comparison, and we can assume independence of responses. The appropriate statistical test to utilize, the Mann-Whitney U test,<sup>8</sup> is reported in Table 7, Appendix B.

Once again, the test concluded that there was a significant difference in the responses based upon question order. Thus we can conclude that a difference does occur based upon the order in which officers are asked to consider how initiative is displayed and stifled in themselves and their subordinates. Furthermore, this effect is evident independent of the previously demonstrated self-serving bias, since the effects of the



earlier bias was evident regardless of the order of the questions. Therefore, we have demonstrated that by simply changing the order of questions, and nothing else, ratings of initiative can be affected.

So far, this analysis has dedicated a lot of effort to demonstrating that initiative is not a particularly "fixed" concept. First, we demonstrated that officers tend to rate themselves as more likely to display initiative than either their peers or their subordinates. Then, we demonstrated that a seemingly insignificant manipulation such as the order questions are presented also affects the ratings of initiative. So what? The implication of this digression from our original research questions is that we are dealing with a very unstable, flexible concept that can be influenced by fairly nonsensical things. Perceptions may not represent reality, although they are considerably easier to measure. But what is the "reality" of initiative that we can measure? We chose to assess attitudes, unstable though they might be, because it is attitudes and perceptions that drive behavior (not to mention "reality") for humans.

Such abstract analysis of the data may seem to be without immediate value, and perhaps even trite. However, it is a necessary down payment for scientific analysis, even if the payoff is not immediately realized within the bounds of the current study. It does not take background and experience in scientific research to recognize that no amount of research on a concept will yield useful findings if the researchers cannot adequately agree on what the concept is, and how the concept can and should be measured.

The implications of conceptual fragility extend beyond obscure scientific debate. For instance, the tone of the literature reviewed in Chapter 2 suggests that we have a tendency to intuitively interpret lack of initiative as an "organizational problem." If assessments of initiative are as fragile as the current findings suggest, how does that help us understand why there is a tendency to attribute low initiative to an organizational

climate? We will revisit the implications of this finding in our final chapter. Our current intent is primarily to establish that the concept of initiative is prone to fragility.

Incidentally, each of the preceding questions was also explored with regard to any significant differences along branch group lines. For instance, do combat arms officers feel that they or their subordinates display more initiative than combat service support officers? No significant trends or patterns as a function of branch group were discovered, so the details of these tests are not reported. However, the very fact that no significant differences were evident between branch groups suggests that the likelihood of a junior officer displaying initiative is not particularly affected by his or her branch.

Research Question: For both the officer and the officer's subordinates, what factors limit the amount of initiative displayed?

Before we analyze the survey results, it is worth noting that we have framed this section under the heading of a research question, not a hypothesis. In other words, our model merely presents a framework for how to understand effects, not a theory which explains why the effects occur as they do. Although I hope to lend support to the basic assumptions and components of my model, I cannot expect to "prove" or even "disprove" that junior leaders use this decision-making process. Any conclusions made in the following section should be interpreted with this caution foremost in mind.

When we examined the earlier hypothesis regarding how the order in which the survey questions were presented affected responses, we were able to draw conclusions about cause and effect. Since we were able to hold all other variables constant (or at least random so that they affected both sets of responses equally) we could be confident that any differences caused in the answers were the result of our manipulation. We concluded that the order in which the questions were presented caused a noticeable effect on the ratings of initiative.

In exploring the various components of initiative, causal inferences cannot be supported by the survey. Since we could not vary the hypothesized causal components while holding all other components constant, we cannot establish that some or all of the twelve components "cause" the overall rating of the likelihood of initiative. In fact, if the order of the questions impacts on the respondent's thought process, as we have demonstrated, could it be that the overall rating of initiative, which was asked first, somehow "caused" the ratings of the twelve components? Or could it be that an unmeasured variable, such as the officer's satisfaction with the Army, might in fact have caused all the ratings on this survey? Or, could some other unmeasured component have had been the cause of all the ratings? We simply can not answer these questions in the context of the current study. All we can say is that some components are more strongly associated with initiative than others.

The strength and direction of associations between variables can be explored by determining the "co-relations," or correlation coefficients, between the variables. Correlation coefficients can range from -1.0 to +1.0. Correlation coefficients of 1.0 (regardless of sign) indicate that two variables are perfectly associated with each other, and a coefficient of zero indicates that there is no direct relationship between the variables. The sign of the coefficient tells us whether the relationship is a positive association (an increase in the value of one variable indicates an increase in the other variable) or a negative association (as the value of one variable increases, the other decreases).

The correlation between two completely unrelated variables will rarely come out to be precisely zero, simply because chance and error play a role in statistics. Therefore, we also conduct statistical significance testing of correlation coefficients to ensure that we are not reading meaning into a relationship that might be reasonably expected to occur by chance. Because the analysis from this point will be primarily exploratory in nature, we will convert to a more stringent standard of statistical significance in order to minimize the

possibility of interpreting a random association as an actual effect. The standard of significance applied to all correlations will be that the association could not be expected to occur by chance more than one time in one-hundred.

Given that most correlation coefficients will fall between the "0" (no association) and the "1" (perfect association) values, how do we interpret the values? We will adopt the basic standards suggested by Guilford:<sup>9</sup>

<.20	slight: almost negligible relationship
.20 - .40	low correlation: definite but small relationship
.40 - .70	moderate correlation: substantial relationship
.70 - .90	high correlation: marked relationship
>.90	very high correlation: dependable relationship

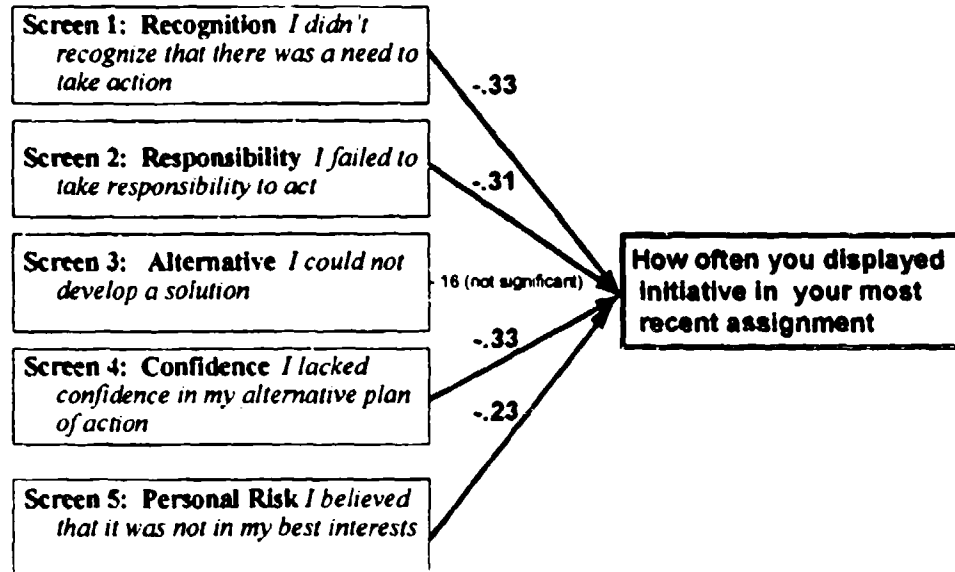
Therefore, no inferences will be made or data presented relating to correlations that do not both meet the test of statistical significance and the minimum useful coefficient of .20, as established by Guilford. The correlations between the overall rating of initiative and each of the twelve components of initiative, for both self-initiative and subordinate initiative, are presented in Tables 8 and 9 of Appendix B.

To understand the overall pattern suggested in these tables, let us begin by exploring how well the various components of the decision-making model of initiative could have predicted the overall rating of initiative. Were the variables for each of the five screens, presented in the survey as the "primary measures" (components 3, 5, 9, 10, and 11, reference Figures 6 and 7 on the following pages), associated with initiative? As there are differences in the results between self initiative and subordinate initiative, each is depicted separately.

Figure 6 shows that the primary measure of Screen 3 (Alternative) failed to show a significant correlation with self initiative. The primary measures for Recognition, Responsibility, Confidence, and Personal Risk all show a definite albeit relatively low association with overall initiative, with correlations that ranged between -.23 and -.33.

**Figure 6**

**Correlations Between Primary Measures of Model and Overall Ratings of Self Initiative**

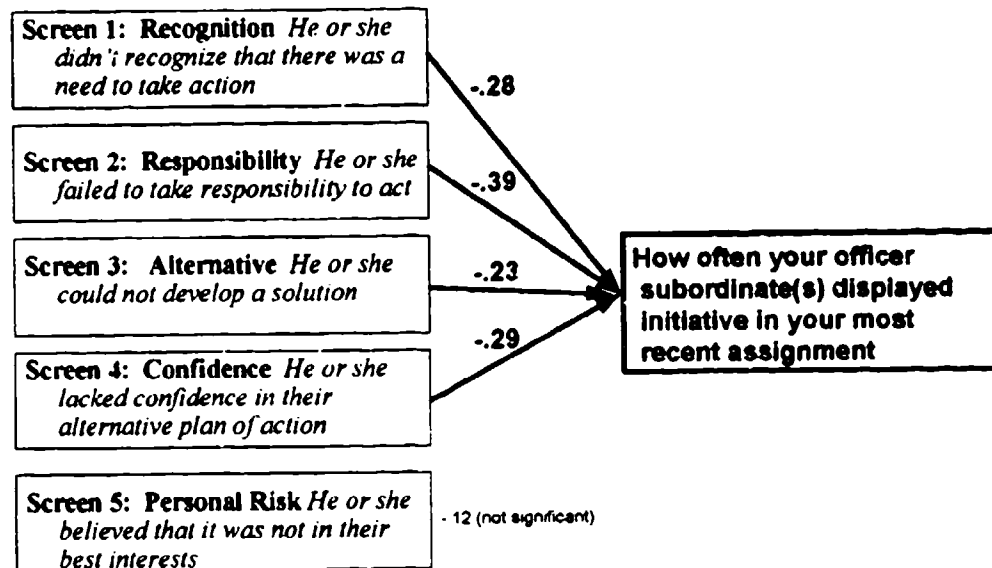


The negative correlations are artifacts of the manner in which the scale was used and the question was presented. These negative correlation coefficients simply indicate that as the component was more likely to inhibit initiative, initiative was less likely to occur.

Figure 7 shows that for subordinate initiative, only the primary measure of Screen 5 (Personal Risk) failed to show a significant correlation with initiative. All the other primary measures were significantly associated, with correlations that ranged between - .23 and - .39

**Figure 7**

**Correlations Between Primary Measures of Model and Overall Ratings of Subordinate Initiative**



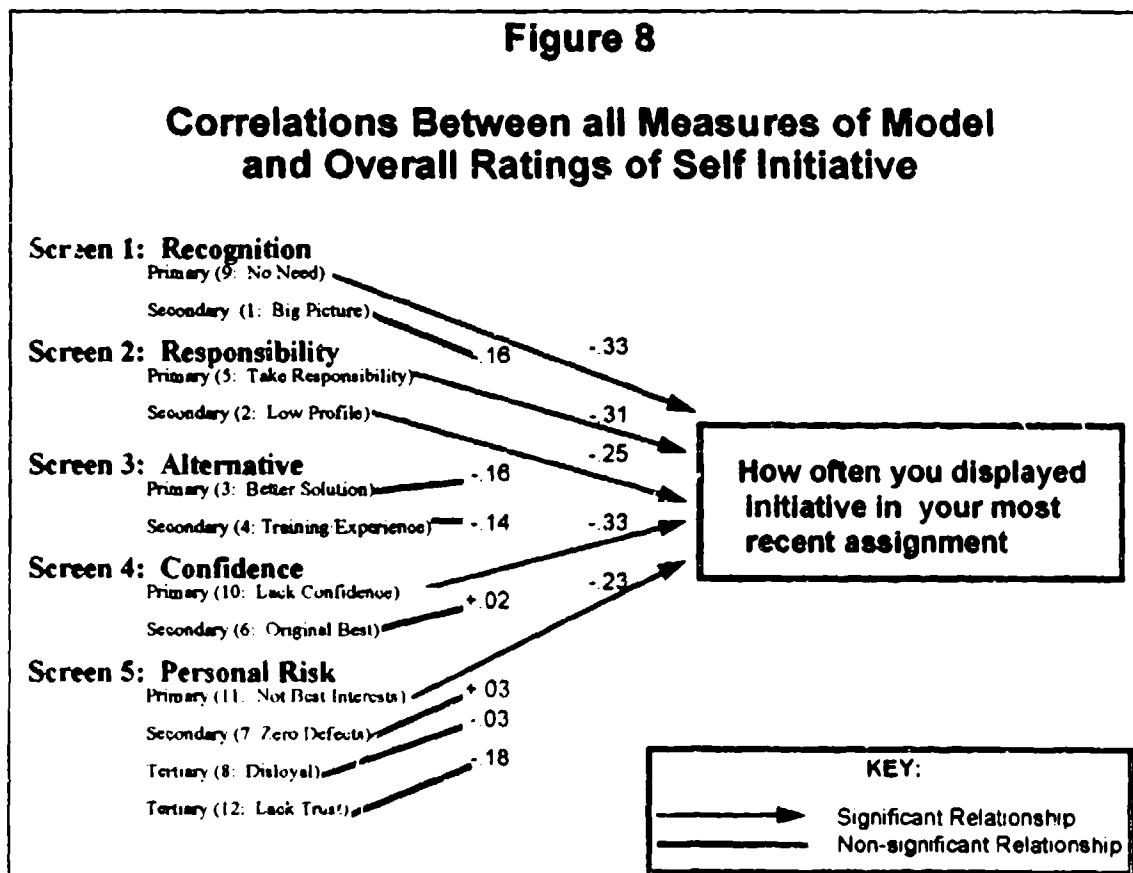
We could stop at this point, having established the relationships between each of the model's screens (through the five primary measures) for both self and subordinate initiative. However, we also have some data concerning the secondary and tertiary measures, which may give us more insight into the nature of these relationships. This will be the focus of the next section.

**Post-Hoc Exploration of the Components of Initiative**

In the previous investigation of the primary measures, Figure 6 established that all the screens except for Screen 3 (Alternative: I could not develop a solution) showed a definite relationship with self initiative. The conclusion that Screen 3 is not associated with self initiative may be reinforced by the secondary measure for Screen 3 (I lacked

adequate training or experience), which also fails to show an association with self initiative (Table 8, Appendix B). One explanation might be that officers are less likely to see these components as inhibiting their own initiative, since these components imply that the officer has a lack of competence in necessary skills.

If we are going to consider the secondary and tertiary components in an exploratory analysis, we must strive to avoid selective use findings to support any particular conclusion. If we are going to consider a single secondary component, we must consider them all--"in for a penny, in for a pound." Therefore, we should put the above use of a secondary measure for Screen 3 into perspective. As can be seen in Figure 8, of all the secondary measures, only the secondary measure for Screen 2 (I wanted to keep a low profile;  $r = -.25$ ; Table 8, Appendix B) is correlated with self initiative.





What does this mean? Possibly nothing; we do not know if there is meaning in the secondary component results or if these measures were simply ineffective. Therefore, we are in the dilemma of attempting to interpret results from the same survey that we are noting deficiencies with. Hence, as we choose to consider these secondary and tertiary measures, we must pay a considerable price in the clarity of the findings.

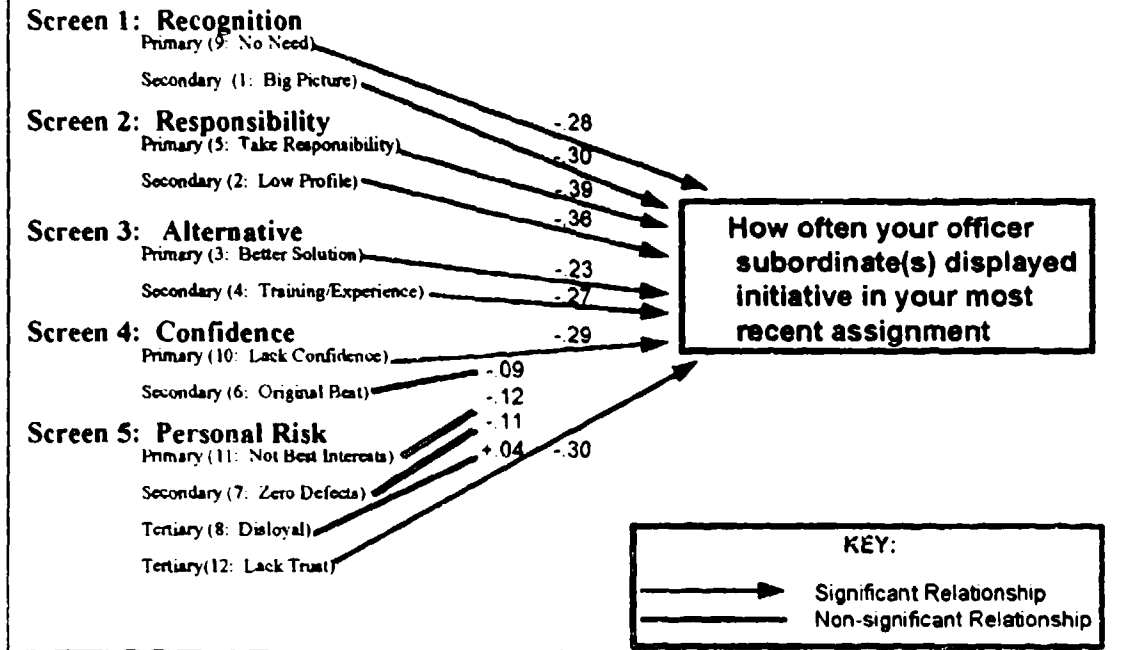
Regarding subordinate initiative, Figure 9 demonstrates that the primary measures for all the screens except for Screen 5 (Personal Risk: The officer believed that it was not in his or her best interests) showed a definite relationship with subordinate initiative. Once again, the secondary measure for Screen 5 (My unit has an unforgiving, "zero defects" climate), also fails to show an association with subordinate initiative (Table 9, Appendix B).

The secondary measures for Screens 1 (The officer didn't understand the big picture;  $r = -.30$ ; Table 9, Appendix B), 2 (The officer wanted to keep a low profile;  $r = -.36$ ; Table 9, Appendix B), and 3 (The officer lacked adequate training or experience;  $r = -.27$ ; Table 9, Appendix B) do show an association, possibly reinforcing the associations already demonstrated by the primary components. For subordinate initiative, only the secondary measure for Screen 4 (Confidence: The officer believed that his or her alternative plan was more likely to accomplish the mission) failed to show an association where the primary measure did.

Why did different patterns emerge between self and subordinate initiative? One possible explanation for this pattern might be that officers might be more likely to see these components as inhibiting their own initiative, since these components imply that there are external components that can explain their unwillingness to display initiative. On the other hand, when it comes to their lieutenants, these same officers might be less likely

**Figure 9**

**Correlations Between all Measures of Model  
and Overall Ratings of Subordinate Initiative**



to attribute a lack of displayed initiative to command climate, since that captain may feel that he or she is then tacitly admitting to being part of the problem.

Given the general conclusions reached in the literature and summarized at the end of Chapter 2, the failure of Screen 5 (Personal Risk) to show an association with self initiative is puzzling and deserves a closer look. One of the two tertiary measures, Component 12 (There was a lack of trust between the officer and me), did correlate to subordinate initiative with a correlation coefficient of  $-.30$ .

What can we conclude from this analysis of secondary and tertiary components? The primary and secondary components for Screen 5 (Personal Risk) fail to show an association with subordinate initiative, yet one of the two tertiary components does. In

Chapter 3, we noted the danger of drawing inferences about Screen 5, since it had four associated measures compared to every other screen's two associated measures (one primary and one secondary).

In hindsight, the inclusion of the tertiary measures may have confounded our ability to draw more confident conclusions. Nevertheless, we cannot compare the results of a tertiary measure of association with any other screen, so it is probably best to save this finding for a discussion of the discovered pattern, instead of including it in a discussion of the expected pattern.

Again, in order to avoid the pitfall of incomplete or selective analysis arranged to support a particular conclusion, we must compare these findings against those for other secondary measures (no other screen had tertiary measures). The secondary measures for Screen 1 (Recognition), Screen 2 (Responsibility) and Screen 3 (Alternative) demonstrated definite associations with subordinate initiative. The secondary measure for Screen 4 (Confidence) did not. However, this last secondary measure (I believed the original plan or order was still best) may have been an ineffective measure of Screen 4. Because the resolution of this issue is primarily of value to future researchers, this special case is addressed in Section IV of Appendix B.

#### Comparison of Self and Subordinate Initiative

If we accept that the primary measures are the best indicators of the existence of a screen, then we may conclude that Recognition, Responsibility, and Confidence Screens were found to correlate strongly with both self and subordinate initiative. Furthermore, these screens, as represented by their primary measures, rendered the highest associations with self and subordinate initiative, with correlations ranging between -.28 and -.39. It appears that we can draw the conclusion that officers do perceive Screens 1, 2, and 4 as being associated with initiative, whether it is self or subordinate initiative.

The conclusions regarding the Alternative and Personal Risk Screens are more complex. Screen 3 (Alternative) was associated more weakly with subordinate initiative (-.23) and not associated with self initiative. Conversely, Screen 5 (Personal Risk) was associated more weakly with self initiative (-.23) and not associated with subordinate initiative.

One conclusion might be that another bias is affecting the associations between the components and initiative. In fact, psychologists have described an actor-observer effect, which is "the tendency for people to attribute the behavior of others to dispositional causes, while attributing their own behavior more to situational causes."<sup>10</sup> In effect, Screen 3 (Alternative) is a dispositional (internal) cause; it is essentially our problem-solving ability. Screen 1 (Recognition), Screen 2 (Responsibility) and Screen 4 (Confidence) are also dispositional causes. Screen 5 (Personal Risk) is a situational (external) cause; it is the degree to which the organization will reward or punish a display of initiative. Hence, the pattern observed--where officers report only dispositional causes (Screens 1 through 4) as causing others' failure to display initiative, but include both dispositional (Screens 1, 2, and 4) and a situational cause (Screen 5) for their own failure--conforms with the pattern predicted by the actor-observer effect.

Earlier in the paper, we emphasized the difference between "macro" and "micro" perspectives on initiative. We clearly see this dichotomy when we consider the actor-observer effect. The measures of Screen 5 were intended to capture the external, organizational factors which impact on initiative--the "macro" perspective. The measures of the other 4 screens all captured more individual, "micro" factors revolving around the officer's skill and will. Hence, we have noted a tendency for officers to see both micro and macro factors as having an impact on their own initiative, but only micro factors as having an impact on the initiative of their subordinates.

Other post-hoc exploration supports the notion that there is a difference between Screen 5 (Personal Risk) and the other screens. While exploring the various intercorrelations between components (Table 10 in Section III, Appendix B), I discovered that the strongest relationships between inhibitors of self initiative and inhibitors of subordinate initiative were the primary, secondary, and tertiary measures of Screen 5. These correlations ranged between .37 and .73 for the four measures which I had associated with Screen 5.

This finding suggests that the external or "macro" components of Screen 5 (Personal Risk) are perceived as permeating both the respondent's and the respondent's subordinate's decision to display initiative. In other words, the measures of Screen 5 appear to have been perceived by the respondents as being part of a higher (battalion, brigade, etc.) climate, as opposed to being a function of a lower (company, platoon) climate.

#### An Important "Negative" Finding

Up until now, we have focused on drawing conclusions about components that were more strongly associated with initiative. However, it is also interesting to observe that three of the twelve components were not associated with either self or subordinate initiative: Component 6 (I believed the original plan or order was still best); Component 7 (My unit has an unforgiving, "zero defects" climate); and Component 8 (I did not want to appear disloyal). Component 6 was intended to be the secondary measure for Screen 4 (Confidence); Component 7 the secondary measure for Screen 5 (Personal Risk); and Component 8, a tertiary measure for Screen 5 (Personal Risk).

Because of their lack of an association with initiative, we might choose to ignore any findings based upon these three measures, and delete them from future surveys. A discussion of the potential use of these components in future research is included in

Section IV of Appendix B. However, the lack of association between these measures and initiative is in itself a fairly important discovery. Specifically, the failure of Component 7 (My unit has an unforgiving, "zero defects" climate) to show an association with either subordinate or self initiative is a truly unexpected and important finding.

A review of this paper's introduction will remind the reader that much of the initial impetus and emotion behind this thesis was provided by the perceived relevance of understanding initiative in an Army where "zero defects" was an increasingly common complaint. This lack of association found between this component, perhaps more than any of the many positive associations found, strongly suggests that zero defects is not serving as an inhibitor of initiative. What we cannot ascertain is whether that is because unforgiving, zero defects are not really all that common, or that even in such units, junior officers are not being inhibited from displaying initiative.

#### Reconciliation with Earlier Findings

Why do these findings differ from what is commonly reported and covered in previous readings and research, as reported in Chapter ?? As noted at the very beginning of this paper, my original intent was to seek proof for popular suppositions that until now had little proof. I was concerned that too much had been written about this subject on the basis of either no evidence or anecdotal evidence.

However, not all previous writings on this subject were without evidence; the PDOS and JOLD studies in particular have reported more disturbing assessments of the amount of initiative self-reported by junior officers. Since the JOLDS research was conducted in small group conferences, the differences might be explained by group dynamics. As demonstrated in my research, we can expect biased responses to emotion-laden terms. These responses can be amplified and exaggerated in social interaction. In other words, once a topic like initiative comes up in conversation, the reaction of the

group members may be to be negative and cynical, perhaps because this is normative behavior in small group "gripe sessions" about leader development.

In Chapter 2, we noted that according to 48.5 percent of company grade respondents to the 1984 PDOS survey, "The bold, original creative officer cannot survive in today's Army."<sup>11</sup> This piece of data is constantly being cited as evidence that the Army stifles initiative (this is a curious "glass half-empty" interpretation, since read another way, 51.5 percent of the surveyed officers did not agree with this statement).

The differences between my findings and the PDOS study might be accounted for by the manner in which my questions were phrased. For instance, in our survey, we saw how something as trivial as the alteration of the question order produced significantly different responses, probably due to an differently anchored frames of reference on the two versions. Consider how the PDOS result might have been affected, then, if the question immediately preceding the above question had asked respondents to evaluate the statement "I am a bold, original creative officer." This question might have affected the frame of reference of the officer, possibly forcing the officer to reconcile discrepant beliefs, such as those caused by a self-serving bias. On the basis of the findings of the current research, I would hypothesize that having to answer this question would have significantly reduced the percentage responding affirmatively to the actual question.

In summary, it appears that the current concern with command climate stifling junior leaders' ability to display initiative may be exaggerated. Evidence presented in this study indicates that command climate is not the primary inhibitor to command climate, and that the current amount of initiative which junior officers claim to display is encouraging.

### Utility of the Decision-Making Model

While we have attempted to draw inferences about the associations between various components and initiative, these delineations are not always clear-cut. It is difficult to interpret these data without allowing some bias to help make order of the data. In this study, a bias was consciously imposed by trying to make reality conform to a 5-screen model. The disadvantage of such an approach is that the researcher will ignore or submerge discrepant data while illuminating the conforming data. I have fastidiously attempted to avoid this temptation; skeptical readers are encouraged to consider the tables of data in Appendix B and draw their own conclusions.

These data suggest that the primary inhibitors of initiative for the surveyed population, given the 12 questions of the survey, appear to be related to the officer's ability to recognize a need to take action, willingness to take responsibility, and have confidence in his or her alternative plan. Development of an alternative plan and personal risk were either unassociated or associated less strongly with initiative, depending whether the officer was considering his own or his subordinates' initiative.

The decision-making model of initiative is portrayed as a multi-step thought process. That portrayal, and the actual sequence of the screens, is more for the sake of depicting an understandable, semi-intuitive model than an attempt to replicate reality. However, if the process is indeed sequential, and if the sequence is similar to that depicted (intuitively, Screen 1 must be first), then another caution regarding interpretation of the data is in order. If an officer's initiative is always stopped at Screen 2 (Responsibility), for instance, then he may not see Screen 4 (Confidence) as an inhibitor, because he has produced no alternative plan to be confident about. Therefore, we need to once again stress that these findings do not, in and of themselves, provide conclusive proof as to the relative importance of each of the model's screens.



In effect, we can neither confirm nor refute any claim that the model accurately reflects how people think about and process a decision to display initiative. However, we have demonstrated that the model allows us to break the concept of initiative up into components that can be seen to impact differently on initiative, depending on whether the officer's own initiative or subordinate initiative is being considered. This gives us considerably greater precision in proposing improvements.

For instance, if an officer reports that the major component that inhibits initiative is that he didn't recognize there was a need to take action, we should not assume that we can develop that officer's initiative simply by providing a command climate that encourages officers to display initiative. In fact, we noted in Chapter 2 that even in the height of the "power down" program at Fort Hood, there were still company grade officers whose lack of initiative was disappointing.<sup>12</sup>

#### Limitations of this Research

We should not lose sight of the limitations of this "one-shot" research program. All data are based on officers' self-reported perceptions about initiative, which we have demonstrated to be at least partially influenced by biases. It is hard to quantify what "often" displaying initiative means, or even assume that it means the same thing to each of the survey respondents. Furthermore, even though we defined initiative in the survey, we must recognize that initiative will probably mean different things to different people.

Furthermore, we have no data regarding actual behaviors. We can draw no conclusions about the causal relationships regarding how, or even if, the various components influence initiative. The correlations we are dealing with are in the .4 range at best. Several of the questions, in light of post-hoc analysis, may not have measured what we had intended for them to measure.

In many ways, the tools available simply are not up to the task. Since we are taking all data from a single survey, there is no way that we can ascertain "cause and effect." We have already demonstrated how fragile the concept of initiative is—yet we cannot remove those effects in order to study the components. Our five-point ordinal scale limits the range of responses, and limits us to relatively less powerful statistical techniques. We are "piloting" a new and imperfect survey instrument and attempting to draw inferences from it at the same time.

It is the nature of serious inquiry that scholars examine and question each others' conclusions—I have already done that with the conclusions of others. Accordingly, others may approach my methodology with suspicion. Perhaps I thought I was measuring "X," but I was really measuring "Y," or "X plus Y." Perhaps I totally missed a major alternative explanation of my results. Conclusive, compelling evidence for any position is rarely obtained on the first iteration of research.

However, if we are to better understand the nature of initiative, this paper represents the next data point in an exploration that may continue to unfold. I will propose recommendations for future research in the next chapter. Additionally, I have included a fairly technical section in Appendix B with findings and guidance for researchers interested in building from or improving upon this research survey.

### Conclusion

After so much discussion about caveats, limitations, and weaknesses of my research, the reader might wonder if there are any conclusions worth carrying into the next chapter (other than the need to do subsequent research). I would only ask that the reader who rejects my findings on the basis of the amount of criticism I have leveled at my own methodology applies the same standards of science to other authors who either fail to conduct any research or fail to note the limitations of their own studies.

In fact, a great deal has been discovered in the course of this exploration. I believe that the following important findings have been substantiated by this study:

- A. Officers are perceiving themselves and fellow officers to generally display initiative.
- B. The concept of initiative is fragile, causing concerns about the validity of any findings which do not take this into account.
- C. The primary component in stifling initiative appears to be related to the individual officer's skill and will in recognizing the problem, taking responsibility, and having confidence in his or her alternative plan.
- D. Despite a wealth of opinion to the contrary, this investigation of the various components associated with initiative suggests that a pernicious "zero defects" command climate is, at best, only a secondary component in stifling initiative.

## CHAPTER 5

### CONCLUSIONS AND RECOMMENDATIONS

#### Conclusions

The research analyzed in the last chapter reveals several primary conclusions:

1. The decision-making model of initiative proposed in Chapter 3 and utilized in Chapter 4 appears to be a useful method of differentiating between the different factors which impact on the likelihood of an officer displaying initiative. All five screens showed a low but definite association with initiative for either subordinate or self initiative; three of the screens demonstrated a definite association with both self and subordinate initiative.

This is an encouraging finding, but it must not obscure the fact that there is still a lot to be learned about the use of this model. For instance, the correlations between each of the screens and initiative were in the range of -.23 to -.39. These five screens were not independent of each other—there was definite overlap between them. Most importantly, we cannot determine from this study if these screens actually caused initiative to be inhibited, or if they were associated with initiative in some other, non-casual relationship. Hence, while the model represents a step forward in understanding the multi-faceted nature of initiative, further research efforts can improve upon it. Anyone interested in doing so is referred to Section V of Appendix B, "Survey Validation: A Note for Future Researchers".

Even if the model ultimately remains unproven, it represents a conceptually unique attempt to provide greater insight into the different factors impacting on initiative. For instance, asserting that initiative can be stifled by both internal (micro) factors and external

(macro) factors provides an increased awareness of the futility of attempting to develop initiative in junior leaders through just one of these paths.

2. Initiative is a fragile concept, difficult to define and recognize. To further complicate any conclusions, several biases affect an officer's perceptions about both his own and his subordinates' likelihood of displaying initiative.

There are several implications that follow from this conclusion. Before attempting to draw conclusions from any research or literature, we must consider if, and how, a definition of initiative was controlled and any biases were accounted for. For instance, we must avoid amplifying the emotional value of initiative by defining it in terms of unnecessary descriptives such as "bold" or "innovative." Furthermore, before attempting to draw conclusions across different pieces of research or literature we must take great care not to inadvertently compare "apples and oranges" by ignoring fundamental differences in the method in which initiative is defined and measured.

3. Initiative is not absent in the junior officers of CAS3 Class 93-4. As noted in Chapter 4, 81.9 percent of junior officers in this class reported that on their last assignment, they "often" or "almost always" took action to best accomplish a mission without waiting for new orders or supervision. Only 7.1 percent of these officers reported that they "infrequently" or "almost never" took initiative. These officers also reported that 67.0 percent of their officer subordinates and 53.8 percent of their peers "often" or "almost always" displayed initiative.

While these percentages could certainly be higher, we cannot conclude, as some have suggested, that it is extremely difficult for junior officers to display initiative in today's Army. I attempted to reconcile my findings with the findings of other research programs in the previous chapter.

4. A "zero defects" command climate is not the primary inhibitor of initiative; various factors related to an officer's skill and will to display initiative are more closely associated with the likelihood of displaying initiative. This conclusion, while less clearly supported than the previous three, may represent the most significant discovery of the lot. Correlational analysis suggests that the inhibitors most strongly associated with initiative are related to an officer's ability to recognize a need to take initiative, willingness to take responsibility and ability to competently execute that responsibility.

This conclusion should not be taken to mean that command climate is not an important issue. It simply does not appear to be what is currently most responsible for stifling initiative in junior officers. Additional support for this conclusion can be drawn from the finding that officers did not perceive the measure "my unit has an unforgiving, "zero defects" climate" as being an inhibitor to initiative.

However, one implication of the decision making model of initiative is that the command climate (Screen 5: Personal Risk ) concern may not be as significant only because junior officers are being stopped at other screens in the model, obviating the need for them to assess personal risk. If they lack competence or commitment, these factors might stifle initiative regardless of the command climate.

### Recommendations

This section, which may be the most relevant section of the entire paper to many, may also be the least original. Virtually every recommendation made in this section has been made before, or tried before. I have merely catalogued these good ideas and provided empirical support which suggests that we devote relatively more attention to the factors other than command climate which may serve to develop initiative.

If these recommendations were already "out there," why haven't they already been adopted? During the 1987 Leader Development Study, the members noted that their

study was not the first to point out these conclusions. They concluded that perhaps there had been too little emphasis on how to implement recommendations.<sup>1</sup> By providing specific, actionable recommendations, I hope that they will lend themselves to implementation.

Since many excellent, existing implementation plans are often holistic in nature--and thus difficult to discuss with regard to only the issue of initiative (for instance, the Fort Hood Leadership Initiatives), certain recommendations may also refer the reader to the recommended document so that the context for the recommendation is not lost.

Many holistic recommendations for improving initiative frequently cite our Army's need to move toward a system similar to German *auftragstaktik*. This recommendation is entirely compatible with my findings, in which individual responsibility and skill must be given at least as much attention as command climate. However, achieving a cultural shift of this magnitude is a daunting task. I will stop short of offering this recommendation, although I will not shy away from recommending various bits and pieces of *auftragstaktik* doctrine which will serve to develop initiative. It has never been the intent of this thesis to demonstrate that *auftragstaktik* is necessary, nor to argue that *auftragstaktik* is a necessary precondition for us to achieve increased initiative in junior Army officers.

I do not know if *auftragstaktik* is an achievable goal. I do know, however, that some US Army units have already enjoyed success in developing initiative in their junior officers. Units that encouraged initiative were documented in both the Excellence in the Combat Arms and the Excellence in Brigades studies, as well as the Fort Hood Leadership Lessons Learned Study.

The challenge to develop initiative is not insurmountable; my research findings imply that we will hardly be starting from scratch. Furthermore, there appears to be no need to rewrite leadership or operational doctrine, since the promotion of junior officer initiative is espoused in both. For the remainder of this section, I have organized

recommendations into five categories on the basis of the actioning agency: Army senior leadership; senior leaders/mentors; junior leaders; Army schools and training, and researchers.

### **Recommendations for US Army Senior Leadership**

1. Reject unsubstantiated claims or complaints that junior officers are not being allowed to display initiative, unless evidence supporting such claims is produced.

Understand that while the concept of initiative may have become a fashionable repository for blame, this study does not support the commonly held opinion that junior officer initiative is stifled. Issues of personal responsibility have received less "air time" in our professional journals than command climate; this research suggests that our priorities and prescriptions are misplaced.

2. Advertise our successes in developing initiative (as the results of this study suggest). Be proactive in deflating dysfunctional assumptions which damage the collective spirit of our Army. Remember that inaccurate or misinformed perceptions can create just as serious a morale problem as accurate perceptions.

3. Avoid incautious overreliance on control measures which purposefully or unintentionally sap junior leaders of a sense of responsibility. We must keep technology (like IVIS) under control, being careful not to use it to allow brigade commanders to routinely control platoon operations.<sup>2</sup>

4. Re-introduce the leadership competency of initiative into FM 22-100, the US Army's direct leadership doctrine. If there is a ceiling on the total number of leadership competencies allowable, a suitable candidate for replacement from the current list is "use of available systems."<sup>3</sup>

5. Include an assessment of initiative in Part IV (Performance Evaluation - Professionalism) of DA Form 67-8, the US Army Officer Evaluation Report.



6. Recognize that initiative is not always desirable in the conduct of operations. Complex, highly synchronized combat operations may require temporarily centralized control. In peacetime training, the concern for safety may override the desire to give junior officers greater autonomy in certain tasks or conditions. As the US Army prepares for an expanded role in operations other than war, restrictive Rules of Engagement (ROE) and/or the impact of media presence may limit the opportunities for junior leaders to operate autonomously. Part of the awareness needed to develop initiative is the ability to recognize when initiative is appropriate, and when it is not.

#### Recommendations for Senior Leaders/Mentors

1. Minimize the requirement for constant "reports" during an operation which correctly or incorrectly allow the junior leader to assume that the entire operation is being controlled at a higher level. By selectively and judiciously requesting only those reports that are needed for the senior leader to make decisions, the senior leader ensures that the junior leader will not erroneously assume that individual initiative is neither desired nor required.<sup>4</sup>

2. Plan training, operations, and other activities which ensure that opportunities for junior leaders to display initiative are available. Ensure that such opportunities are followed up with feedback. Maintain AAR "integrity" (focus on development over evaluation) in order to prevent a "zero defekts" [sic] mentality.<sup>5</sup>

3. Provide written leadership philosophies (the best example being Fort Hood's "Greenbook"), which emphasize personal responsibility and empowerment. Commanders visibly committed to living by these philosophies are powerful reinforcements of any philosophy. A decentralized command philosophy cannot flourish at "grass roots" unit level if it is not explicitly sanctioned and enforced by the entire chain of command.<sup>6</sup>

4. Reinforce the belief that an error of omission is worse than error of commission.<sup>7</sup> Show tolerance for an "honest mistake " In the original Excellence in the Combat Arms study, excellent battalion commanders "all tolerated failure as the cost of learning."<sup>8</sup> Furthermore, all attempts at mission accomplishment, successful or not, should produce feedback for the junior leader.

5. Balance the previous recommendation with the need to ensure that standards are met and the mission is accomplished. It is naive to expect our Army to accept failure as the price of initiative. Certain failures are simply unacceptable. Furthermore, "undue" tolerance and underwriting of errors will possibly result in inflated OEKs and lowered standards. This is a difficult dilemma for any commander. In determining how to respond to a junior officer's failure to accomplish the mission, one useful guiding principle is to determine whether the subordinate's failure was due to action or inaction. Another principle is to determine whether the junior leader has learned from the failure, and is thereby capable of future success on the same mission. It is easier to justify underwriting the cost of failure if you know that you have made a sound investment in that junior officer's development as a leader.

6. Carefully determine what outcomes will be measured in assessing and improving subordinate leader and unit effectiveness. The focus of measurement and command attention should remain on achievement and improvement, not failure and blame. Remember that some of a unit's most important assets (morale, cohesion, discipline, etc.) are difficult to measure. A commander's choice of measures of effectiveness must be thoughtful, systematic,<sup>9</sup> and even "cautious."<sup>10</sup>

7. Ensure that you clearly communicate your intent for each mission; ask your subordinate leaders to brief you back.

8. Provide for a more stabilized personnel environment.<sup>11</sup> Major Dan Bolger noted that "the best way to know intent is not to read about it; it is to know the guy who

gave the order."<sup>12</sup> If we are to achieve this, we should not forget the importance of building increased trust and understanding through cohesion.<sup>13</sup>

9. Use the "Decision-Making Model of Initiative" portrayed in Figure 1 as a checklist for ensuring that your subordinate officers are able to pass through each of the screens and display initiative. When an officer fails to display initiative, use this model to help narrow down and address the closed screen.

10. Create a command climate in which decentralized execution and junior officer initiative is the normal mode of operation.<sup>14</sup> Ask "will my subordinates accomplish the mission?" instead of "will he do it as I would?"<sup>15</sup> Embrace LTC Faris Kirkland's command philosophy:

A supportive boss is not one who coddles his subordinates, overlooks slovenly performance, or praises mediocrity. He is one who takes the process of socializing subordinates seriously, listens to them, talks army with them, encourages them to think creatively, and tells them when they are off on the wrong foot. He tries to teach them all he knows, tests them to see if they are getting it, and challenges them to improve on his ideas. He takes responsibility for setting priorities, establishing standards, warding off requirements that compromise unit capability, and creating an active-learning environment for his subordinate leaders. He gives them as much discretion as they can handle, takes the heat when they make mistakes, and works with them on how to do better. He accepts bad news with equanimity, keeps failures in perspective, sets the example in integrity and candor, and tolerates no lying. He respects and trusts his troops, knows and listens to his most junior subordinates, shares their hardships, and requires his subordinate leaders to do so also. He engages his subordinate leaders in addressing together the problems that face the unit, and keeps his and their focus on the unit's long-term welfare.<sup>16</sup>

#### Recommendations for Junior Leaders

1. Ensure that you assume responsibility for action in absence of orders. Colonel David S. Blodgett, former Director of CGSC's Battle Command Training Center, has even suggested that junior officers should adopt the motto "it is better to ask forgiveness than permission."<sup>17</sup>

2. "Understand that successful job performance requires risk of being corrected."<sup>18</sup> Be willing to stick your neck out for a good idea. If you operate under the guiding principle that you keep a low profile and minimize attention from your commander, then you will lack the courage, candor, and commitment required of a leader. The only people who never make mistakes are those who never do anything.

3. Assume primary responsibility for your professional training and education. Without thorough grounding in your area of expertise, you will either be unable to exercise initiative or you will demonstrate reckless initiative, ultimately failing. By virtue of a military education that provides a common orientation<sup>19</sup> and a precise, standard, and widely understood military doctrine and terminology,<sup>20</sup> you will be capable of sharing ideas and interpretations. A military schooling mindset which focuses on achieving minimum standards will make it more difficult for you to achieve the basic competence essential to displaying initiative. In the words of General Henry Knox, "Officers can never act with confidence until they are masters of their profession."<sup>21</sup>

4. Know and ensure you understand your commander's intent. When in doubt, give your commander a briefback.

5. Recognize a need to display initiative and take responsibility for displaying initiative when the opportunity exists. During operations, anticipate the unexpected; constantly be developing alternative courses of action in your head.

6. Remember General J.F.C. Fuller's "maxim for the ignorant": "When the soldier . . . does not know what to do, he must strike; he must not stand still, for normally it is better to strike and fail than it is to sit still and be thrashed."<sup>22</sup> As the IDF motto states, "When in doubt, hit out."

7. Understand that initiative is not the inherent right of every new junior officer. Your commanders will be watching you, assessing your willingness and ability to accomplish missions without supervision or orders, and adjusting the amount of latitude to

give you on any mission; this is particularly true if you are relatively inexperienced in accomplishing that mission. The opportunity to display initiative, like the opportunity to lead our soldiers, is earned through competence and commitment.

### **Recommendations for Army Trainers and Educators**

1. Conduct frequent tactical exercises that provide the conditions necessary to display initiative. An example might be providing junior leadership with opportunities to practice blacked out communications, so that a subordinate leader prevented from getting further guidance must act on his or her own.<sup>23</sup>

2. Place junior leaders in a training situations whic' require them to disobey orders for justifiable reasons.<sup>24</sup> This may sound radical, if not dangerous, but our Army currently practices the same technique in classroom military law and ethics case studies. In the words of William McDougall:

Thousands of moralists have solemnly repeated the old saw that only he can command who has learnt to obey. It would be nearer the truth to say that only he can command who has the courage and the initiative to disobey.<sup>25</sup>

3. Attempt to give mission-oriented guidance, although this desired goal is (and should be) necessarily tempered by appreciation for a subordinate leader's capability.<sup>26</sup> For instance, a German officer in a tactical exercise is only told forces available, space to use, and time for mission to begin--there is a wide variety of possible solutions, and no school solution is provided.<sup>27</sup>

4. De-emphasize the notion that there is one best correct "school solution."<sup>28</sup> Such a mindset stifles the imagination and sets the mind on a hunt through routine and predictable territory. If the use of school solutions is unavoidable, consider adopting General George Marshall's method of encouraging initiative at Fort Benning, where he initiated the policy that "any student's solution of a problem that ran counter to the approved school solution and yet showed independent, creative thinking would be

published to the class."<sup>29</sup> This method would be likely to build confidence in leaders that their own plans and ideas are as good as the school's.

5. Reward independent thought, as opposed to training intended to result in uniform thinking. As General George Marshall suggested, it is necessary to "teach soldiers how to think, not what to think."<sup>30</sup>

6. Inject friction into training,<sup>31</sup> so that a leader needs to improvise off of a plan that no longer will work. For instance, in IDF leadership training at Bahad 1 (the IDF equivalent to Infantry OBC), junior leaders are normally confronted with unexpected obstacles.<sup>32</sup> Accept that recommendations to increase the amount of friction in training are not antithetical to our training doctrine; this is simply challenging, realistic training.<sup>33</sup>

#### **Recommendations for Researchers**

1. Confirm that initiative is related to leader effectiveness or mission accomplishment. This study, which only measured perceptions, was unable to determine if junior officers who claimed to be more likely to display initiative were also better leaders. Comparing officers' perceptions with their behaviors with regard to initiative would be an important contribution.

2. Couple the above assessments with ratings by the officer's supervisors and subordinates, so as to get multiple ratings of initiative at several echelons of leadership.<sup>34</sup> By "triangulating" a given person's initiative, as measured through multiple independent sources, we might gain precision in understanding how and why initiative is perceived differently by different people.

3. Employ psychological profile instruments, such as an intelligence test, or the Myers-Briggs Type Indicator (MBTI), or other instruments that measure various personal dispositions such as "need for achievement" and "locus of control." It seems quite possible that some measurable individual characteristics can help account for the individual

differences that exist in the likelihood of displaying initiative. The methodology used in this thesis does not help us address individual personality traits or characteristics.

### Summary

When I began this study, I was intuitively convinced that there were problems with initiative, and that these problems were caused by a micromanaging, zero-defects climate. I set out to prove my suspicion. My initial opinion was readily reinforced by many who have written on the subject. In retrospect, the very title of this thesis may have been unwittingly worded to support the tacit assumption that responsibility for developing initiative lies with the Army. Now, nine months later, I see that the collective perception of company grade officers (an entire CAS3 class) does not support the notion that initiative is being stifled. I also recognize that initiative as a much more complex and delicate process, one in which command climate may actually play a secondary role.

My insights, however, are still being drowned out by others who believe, just as I did, that our junior officers do not exercise initiative, and that the primary culprit is our command climate. Just as I was putting the final touches on this thesis, my May 1993 issue of Army Magazine arrived in the mail. On page 2, in a letter which the editors entitled "Encroaching Zero-Defects System," an earnest Army captain stationed in Germany paints a picture of an Army which I would not want to be a part of:

[The drawdown and less than brilliant OERs are] being used to "silence innovation and thinkers in our junior officer ranks . . . . Thus, the Army is promoting a corps of lieutenants and captains who will become yes-men and conformists to the party line as the advance in rank . . . . We are becoming more concerned with ourselves than with the development of our subordinates. [A senior officer recently wrote that] "The goal is a leadership climate that encourages initiative, innovation, and sometimes reaching beyond one's grasp." If senior leaders are honest with subordinates, this can become reality, not just a concept, and the leaders with the greatest potential will rise to service at the top.<sup>35</sup>

This letter served as a "reality check" for me. I do not doubt that there are pockets of "zero-defects" units out there which stifle their officers' initiative. Yet, they appear to be the exceptions. Of the 249 captains who participated in my research, very few reported that their initiative was inhibited; even less attributed lack of junior officer initiative to an unforgiving, "zero-defects" command climate. This is an important finding, and deserves to be considered by those who are quick to criticize our Army for its climate.

Yes, command climate is important, but it is not the only factor which affects initiative. Let's not lose sight of the junior officer's role in developing initiative. To allow junior officers to believe that the Army leadership thinks that initiative is solely a function of command climate is to essentially relieve them of responsibility for developing their own initiative. This is a fatalistic approach, and it is precisely what we do not want a battlefield leader to adopt. The concept of command climate should not be used as a vague scapegoat excuse for a junior officer's unwillingness or inability to demonstrate an appropriate amount of initiative. I sincerely hope that this study will contribute toward a greater appreciation for the many factors, individually and organizationally produced, which contribute to a junior officer's likelihood of displaying initiative.

To conclude this thesis, I will invoke the words of two great leaders. The first quote is a final reflection on how senior leaders may contribute to developing initiative; the second quote captures the first step that junior leaders must take if they are to develop initiative.

Few things help an individual more than to place responsibility upon him,  
and to let him know that you trust him.<sup>36</sup>

--Booker T. Washington

Man must cease attributing his problems to his environment, and learn again  
to exercise his will . . .<sup>37</sup>

--Albert Schweitzer



## CHAPTER 1 ENDNOTES

<sup>1</sup>A notable exception being David Cowan, "Auftragstaktik: How Low Can You Go?" (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, US Army Command and General Staff College, 1986).

<sup>2</sup>Dr. Bruce Menning, A211 (Research Methods I) Class, 16 October 1992.

<sup>3</sup>Walter F. Ulmer, Jr, "Introduction," in The Challenge of Military Leadership, ed. Lloyd Matthews and Dale Brown (Washington, DC: Pergammon-Brassey's, 1989), xviii.

<sup>4</sup>Alma G. Steinberg and Julia Leaman, Leader Initiative: From Doctrine to Practice (Paper presented at 32nd Annual Military Testing Association Conference, 7 November 1990), 2.

<sup>5</sup>David J. Oberst, "Three Kinds of Initiative: The Role of Initiative in Airland Battle Doctrine" (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, US Army Command and General Staff College, 1986), 2.

<sup>6</sup>Ibid, ii.

<sup>7</sup>US Army, FM 100-5, Operations (Washington, DC: US Government Printing Office, 1986), 15.

<sup>8</sup>Oberst, "Role of Initiative," 4.

<sup>9</sup>FM 100-5 (1986), 15.

<sup>10</sup>Webster's 9th New Collegiate Dictionary, (Springfield: G & C Merriam Co, 1984), 683.

<sup>11</sup>Mary Zey-Ferrell, Arlene Parkman, and Jerry Gaston, Initiative and Innovation in the Soviet Military (Occasional Papers #6; Occasional Papers Series, 1984), 12.

<sup>12</sup>W. C. Borman, S. J. Motowidlo, S. R. Rose, and L. M. Hanser, Development of a Model of Soldier Effectiveness (Technical Report TR 741. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 1987), 3.

<sup>13</sup>William P. Burke and Patricia Knight Davis, The Leadership Improvement Modules of the Precommissioning Leadership Assessment Program (Research Report RR 1425. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 1986) , 2.

<sup>14</sup>The other 15 dimensions of leadership are: oral communication skills; written communication skills; oral presentation skills; sensitivity; influence; planning/organizing; delegation; administrative control; problem analysis; judgement; decisiveness; technical competence; physical stamina; mission accomplishment; and followership. US Army, 1988 Camp All American Evaluator Handbook (US Army Cadet Command, Fort Bragg, NC, 1988) , 10.

<sup>15</sup>Joel J. Snow, "Airland Battle Doctrine Tenets in Opposition," Military Review 67 (October 1987) : 66.

<sup>16</sup>Lynn Kaufman, "Initiative in the U.S. Soldier," Military Review 76 (November 1986) : 45.

<sup>17</sup>Steinberg and Leaman, Leader Initiative, 2.

<sup>18</sup>Dandridge M. Malone, Small Unit Leadership (Novato, CA: Presidio Press, 1983) , 38.

<sup>19</sup>US Army, FM 22-100, Military Leadership (Washington, DC: US Government Printing Office, 1983) , 123.

<sup>20</sup>Sun Tsu, The Art of War, trans. Samuel B. Griffith (New York: Oxford University Press, 1982) , 112.

<sup>21</sup>Carl von Clausewitz, On War, ed. and trans. by Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976) , 101.

<sup>22</sup>Richard E. Simpkin, "Command and Control from the Bottom," Infantry 75 (March-April 1985) : 35.

<sup>23</sup>Although it is interesting to note that Peck's monograph "A Doctrine Lost and Found" is based on the ironic assertion that the Hessians learned *auftragstaktik* from the irregular colonial forces they faced in the American Revolution. See Peck, Terry. "Leadership--A Doctrine Lost and Found" (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, US Army Command and General Staff College, 1990).

<sup>24</sup>Men Against Fire, cited by Anthony Kellett, Combat Motivation: The Behavior of Soldiers in Battle (Boston: Kluwer-Nijhoff, 1982) , 22.

<sup>25</sup>Bruce C. Clarke, Guidelines for the Leader and Commander (Harrisburg: Stackpole, 1973), 95.

<sup>26</sup>Shoffner, Wilson A., Handout accompanying Presentation (US Army Command and General Staff Officer Course (CGSOC) Class of 1993, 22 Oct 92), 4.

<sup>27</sup>Dandridge M. Malone, "Implementation of the Leadership Goal: A Summary," Army Organizational Effectiveness Journal (No. 1, 1985): 9.

<sup>28</sup>US Army, NTC Lessons Learned, January 1988 (Center for Army Lessons Learned, Fort Leavenworth, KS, 1988), 2.

<sup>29</sup>US Army, Leader Development Study (Fort Leavenworth, KS, 1987), 13.

<sup>30</sup>John W. Foss, "Command," Military Review 70 (May 1990): 7.

<sup>31</sup>See for instance: Willbanks, James H. "Airland Battle Tactical Command and Control: Reducing the Need to Communicate Electronically in the Command and Control of Combat Operations at the Tactical Level" (Master of Military Art and Science, Thesis, US Army Command and General Staff College, 1984), or Morosoff, Peter S. "Innovation: Practice and Theory," Marine Corps Gazette (April 1990): 28-30.

<sup>32</sup>Samuel L. A. Marshall, Men Against Fire (New York: William Morrow and Co, 1947), 132.

<sup>33</sup>Cowan, "How Low Can You Go?," 5.

<sup>34</sup>William L. Rollins and Bob Evans, "Why do Leaders Resist Implementing Power Down?" Excel Net Concept Papers, Vol I (Nov 83-Oct 85), 38-39.

<sup>35</sup>John Vermillion, "Tactical Implications of the Adoption of Auftragstaktik for C2 on the Airland Battlefield" (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, US Army Command and General Staff College, 1985), 32.

<sup>36</sup>Vermillion takes some exception to this: "Viewed superficially, the AirLand Battle tenet of synchronization conflicts with *Auftragstaktik's* concept of brief mission orders. In truth, the conflict is more apparent than real." Ibid, 24. [However, he does not further develop or support this issue.]

<sup>37</sup>John T. Nelsen, "Where Do We Go From Here? Considerations for the Formal Adoption of Auftragstaktik by the US Army" (Monograph, School of Advanced Military

Studies, Fort Leavenworth, KS, US Army Command and General Staff College, 1990) , 21.

<sup>38</sup>Foss, "Command," 5.

<sup>39</sup>Roger A. Beaumont, "'Wehrmacht Mystique' Revisited," Military Review 70 (February 1990) : 67.

<sup>40</sup>Vermillion, "Tactical Implications," 33.

<sup>41</sup>Dandridge M. Malone, An Army of Excellence (LMTA Working Paper 83-1 Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 1983) , 40.

<sup>42</sup>Federal Ministry of Defense, Army Staff (Fue H III 2), "The German Army's Mission-Oriented Command and Control," Armor (January-February 1981) : 15.

<sup>43</sup>Walter von Lossow, "Mission-Type versus Order-Type Tactics," Military Review 57 (June 1977) : 90.

<sup>44</sup>David A. Fastabend, "The Application of Commander's Intent," Military Review 67 (August 1987) : 61.

<sup>45</sup>Robert A. Fitton, ed., Leadership: Quotations from the Military Tradition (Boulder: Westview Press, 1990) , 35.

<sup>46</sup>Fastabend, "Commander's Intent," 61.

<sup>47</sup>US Army, NTC Lessons Learned 88-1, 5.

## CHAPTER 2 ENDNOTES

<sup>1</sup>US Department of Defense, Joint Pub 1-02, Department of Defense Dictionary of Military and Associated Terms (Washington, DC: US Government Printing Office, 1989) , 118.

<sup>2</sup>US Army, Field Service Regulations (Washington, DC: US Government Printing Office, 1914) , 3.

<sup>3</sup>US Army, FM 22-103, Leadership and Command at Senior Levels (Washington, DC: US Government Printing Office, 1987) , 33.

<sup>4</sup>FM 100-5 (1986), 15.

<sup>5</sup>*Ibid*, 15.

<sup>6</sup>US Army, FM 100-5, Operations (Washington, DC: US Government Printing Office, 1982) , 2-2.

<sup>7</sup>It is a matter of debate regarding the degree to which *auftragstaktik* is found in the Army's other manuals. Vermillion suggests that the notion of *auftragstaktik* has found its way into FM 71-1, and 71-2. Harwood suggests that *auftragstaktik* is missing in armor and mechanized doctrine, yet present in light infantry doctrine. See Vermillion, "Tactical Implications," 3, and Michael J. Harwood, "Auftragstaktik: We Can't Get There from Here" (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, US Army Command and General Staff College, 1990), 28.

<sup>8</sup>See for instance: Michael A. Burton, "Command and Control: Is the U.S. Army's Current Problem with Decentralized Command and Control a Function of Doctrine or Training?" (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, US Army Command and General Staff College, 1986); Cowan, How Low Can You Go?; Harwood, We Can't Get There From Here; Vermillion, Tactical Implications; Nelsen, Where Do We Go From Here?; and Peck, Doctrine Lost and Found.

<sup>9</sup>Malone, Army of Excellence, 22-23.

<sup>10</sup>US Army, FM 22-100, Military Leadership (Washington, DC: US Government Printing Office, 1990) , 6.

<sup>11</sup>FM 22-100 (1990) , 68.

<sup>12</sup>Ibid, viii.

<sup>13</sup>FM 22-100 (1983) , 107.

<sup>14</sup>A long-running debate in leadership literature has centered on the issue of whether there is a such thing as leadership "traits," or if leadership is the function of behaviors in a given situation, without regard for traits. See for instance: Associates, United States Military Academy, Leadership in Organizations (New York: Avery, 1990) , 4-6.

<sup>15</sup>FM 22-100 (1990) , 25.

<sup>16</sup>Paul T. Twohig and Trueman R. Tremble, Jr. Leadership Performance Measurement in a Tactical Environment (ARI Research Report RP 1580. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. 1991) , 1.

<sup>17</sup>US Army, DA Pam 600-32. Leadership Development for the Total Army (Washington, DC: US Government Printing Office, 1991) , 8.

<sup>18</sup>FM 22-103 (1987) , 1C.

<sup>19</sup>Bettina A. Babbitt, Szily A. Seven, Lawrence E. Lyons, and Ronald J. Sparks, "Fort Hood Leadership Study: Final Report" (Westlake Village, CA: Essex Corporation, February 28, 1986) , III-7.

<sup>20</sup>US Army, Leadership Lessons Learned: Fort Hood Leadership Study (Center for Army Lessons Learned, Fort Leavenworth, KS, 1986).

<sup>21</sup>John A. Cope, Jr., "Doctrinal Credibility: A Problem of Focus with FM 100-5," Military Review, 64 (August 1984) : 70. ; Faris R. Kirkland, "The Gap Between Leadership Policy and Practice: A Historical Perspective," Parameters (December 1990) : 59.

<sup>22</sup>Harwood, "We Can't Get There from Here," 29.

<sup>23</sup>Martin Van Creveld, The Training of Officers (New York: Free Press, 1990) , 30.

<sup>24</sup>Nelsen, "Where Do We Go From Here?," 3.

<sup>25</sup>This assertion is made by Nelsen, "Where Do We Go From Here?," 2. Beaumont directly contradicts the assertion, but offers no countering evidentiary support, in his "'Wehrmacht Mystique' Revisited," 75. Since it is considerably more difficult to prove the non-existence of something, any evidence regarding actual German pre-1945 use of the term would help resolve this peripheral issue.

<sup>26</sup>Nelsen, "Where Do We Go From Here?," 2.

<sup>27</sup>Simpkin, "Command and Control," 34.

<sup>28</sup>Ibid, 36.

<sup>29</sup>Peter Paret, "Clausewitz," in Makers of Modern Strategy, ed. Peter Paret, (Princeton: Princeton University Press, 1986) : 212.

<sup>30</sup>See for instance, Peck, "Doctrine Lost and Found"; Vermillion, "Tactical Implications," 4.

<sup>31</sup>Vermillion, "Tactical Implications," 5.

<sup>32</sup>Moltke, cited by Trevor Dupuy, A Genius for War: The German Army and General Staff, 1807-1945 (Englewood Cliffs, NJ: Prentice-Hall, 1977) , 116.

<sup>33</sup>Antulio J. Echevarria, III, "Auftragstaktik: In its Perspective," Military Review 66 (October 1986) : 52.

<sup>34</sup>Dupuy, Genius for War, 268; Jean de Bloch, The Future of War (Boston: World Peace Foundation, 1914) , 46.

<sup>35</sup>Burton, "Command and Control," 13.

<sup>36</sup>Vermillion, "Tactical Implications," 26.

<sup>37</sup>Wedemeyer, cited by Frederick B. Hodges, "Training for Uncertainty," (Monograph, School of Advanced Military Studies. Fort Leavenworth, KS, US Army Command and General Staff College, 1992) , 4.

<sup>38</sup>Frank A. Kerkmeyer, Auftragstaktik and Command Climate (Paper presented at CAL Leadership Research Conference, May 1987) , 146.

<sup>39</sup>Dupuy, Genius for War, 307.

<sup>40</sup>Richard E. Cavazos, "The Moral Effect of Combat," in Leadership on the Future Battlefield, ed. James Hunt and John Blair (Washington, DC: Pergamon-Brassey's, 1985), 20.

<sup>41</sup>Simpkin, cited by Vermillion, "Tactical Implications," 36.

<sup>42</sup>See von Lossow, "Mission versus Order-Type Tactics," 87; or Frank A. Kerkmeyer, "Auftragstaktik," Infantry 77 (November-December 1987) : 28.

<sup>43</sup>Franz Uhle-Wettler, LTG (Ret.), "What is Auftragstaktik - and Can We Revive It?" Unpublished manuscript obtained from the Maneuver Warfare Symposium, United States Military Academy, 1991, 10.

<sup>44</sup>Nelsen, "Where Do We Go From Here?," 28.

<sup>45</sup>Hughes, cited by Harwood, "We Can't Get There from Here," 10.

<sup>46</sup>Ibid, 36.

<sup>47</sup>Reuven Gal, A Portrait of the Israeli Soldier (New York: Greenwood Press, 1986), 120.

<sup>48</sup>Ibid, 130.

<sup>49</sup>Kaufman, "Initiative in the U.S. Soldier," 50.

<sup>50</sup>Interview with Lieutenant Colonel Yehuda Shoshani, Israeli Defence Force Officer attending the US Army Command and General Staff Officer's Course, Fort Leavenworth, KS, 14 April 1993.

<sup>51</sup>Gal, Portrait of the Israeli Soldier, 132.

<sup>52</sup>LTC Shoshani interview, 14 April 1993.

<sup>53</sup>See for example Thomas A. Parker, "Leadership: Ours Versus Theirs," U.S. Naval Institute Proceedings (October 1982) : 142-144.

<sup>54</sup>Richard N. Armstrong, "Initiative Soviet Style," Military Review 64 (June 1984) : 16.

<sup>55</sup>Zey-Ferrell et al, Initiative and Innovation, 17.



<sup>56</sup>Robert F. Baumann, "The Soviet-Afghan War, 1979-1989," in C620 Syllabus/Book of Readings (Fort Leavenworth, KS: US Army Command and General Staff College, Dec 1992) : 428.

<sup>57</sup>Richard Gabriel, The New Red Legions (Westport, CT: Greenwood Press, 1980), 92.

<sup>58</sup>Zey-Ferrell et al, Initiative and Innovation, 9.

<sup>59</sup>Gabriel, New Red Legions, 85.

<sup>60</sup>Nick Psaki, "Who Has the Initiative?" Excel Net Concept Papers, Vol I (Nov 83-Oct 85) : 98.

<sup>61</sup>Kunitski, cited by Armstrong, "Initiative Soviet Style," 22.

<sup>62</sup>Kaufman, "Initiative in the U.S. Soldier," 45.

<sup>63</sup>Norman F. Dixon, On the Psychology of Military Incompetence (New York: Basic Books, 1976), 194.

<sup>64</sup>Associates, USMA, Leadership in Organizations, 89-91. The term "hygiene" is used to imply that it must be maintained.

<sup>65</sup>Burton, "Command and Control."

<sup>66</sup>Harwood, "We Can't Get There From Here," 2.

<sup>67</sup>Cowan, "How Low Can You Go?," 18.

<sup>68</sup>Simonson, Jerry A., Herbert L. Frandsen, and David A. Hoopengardner. "Excellence in the Combat Arms" (Thesis, Naval Postgraduate School, Monterey, CA, 1984), 10-12. Nicholas J. Turchiano, Huey B. Scott, James M. Gass, and Lawson W. Magruder III, "Excellence in Brigades" (US Army War College Military Studies Program Paper, Carlisle, PA, 1986), 9.

<sup>69</sup>Turchiano et al, "Excellence in Brigades," 45.

<sup>70</sup>Simonsen et al, "Excellence in the Combat Arms," 33.

<sup>71</sup>Simonsen et al, "Excellence in the Combat Arms," 10; Turchiano et al, "Excellence in Brigades," 45.

<sup>72</sup>FM 100-5 (1986) , 22.

<sup>73</sup>John A. English, A Perspective on Infantry (New York: Praeger, 1981) , 133.

<sup>74</sup>Paul H. Herbert, DePuy and the 1976 Edition of FM 100-5, Leavenworth Papers No. 16 (Fort Leavenworth, KS: Combat Studies Institute, US Army Command and General Staff College, 1988) , 16.

<sup>75</sup>Cowan, "How Low Can You Go?," 23.

<sup>76</sup>US Army, United States Army Training Board Discussion Paper 1-86 (Fort Monroe, VA: TRADOC, 1986) , 2.

<sup>77</sup>US Army, Leader Development Study, 20-21.

<sup>78</sup>Ibid, 21.

<sup>79</sup>FM 22-103 (1987) , 42.

<sup>80</sup>Steven R. Covey, The Seven Habits of Highly Effective People (New York: Simon and Schuster, 1989) , 52.

<sup>81</sup>US Army, Fort Hood Leadership Study, 17; Malone, "Implementation of the Leadership Goal," 15.

<sup>82</sup>Harwood, "We Can't Get There From Here," 34, 35.

<sup>83</sup>Ulysses S. Grant III, "General Ulysses S. Grant: A Close-Up," in Military Analysis of the Civil War (Milwood: KTO Press, 1977) , 131.

<sup>84</sup>Rollins and Evans, "Why do Leaders Resist Implementing Power Down," 39.

<sup>85</sup>US Army, Fort Hood Leadership Study, 14.

<sup>86</sup>Kaufman, "Initiative in the U.S. Soldier," 46.

<sup>87</sup>GEN Gordon Sullivan. Letter to Command and General Staff Officer Course (CGSOC) Class of 1993, October, 1992.

<sup>88</sup>Daniel P. Bolger, "Zero Defects: Command Climate in the First U.S. Army, 1941-1945," Military Review 71 (May 1991) : 62.

<sup>89</sup>Dandridge Malone, "The Trailwatcher," Army (May 1981) : 22.

<sup>90</sup>US Army, Leading and Manning Army 21: Final Report of 1984 Summer Study (Army Science Board, November 1984) , 57.

<sup>91</sup>William J. Mall, "'One Mistake Career' Mentality," TIG Brief, 5 (May 1986) : 2.

<sup>92</sup>Sullivan letter.

<sup>93</sup>This term refers to a command and control technique reportedly used extensively in Vietnam. Brigade and Battalion commanders would fly overhead during small unit operations, directing squad movements by radio, and eliminating the need for several intermediate links in the chain of command.

<sup>94</sup>Robert L. Schmidt, "A Doctrine for Command," Military Review 65 (November 1985) : 45.

<sup>95</sup>John K. Stoner, "Can We Talk? Transformational Leadership and Communications Technology at the Tactical Level of War" (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, US Army Command and General Staff College, 1992) , 36.

<sup>96</sup>Ibid, 3.

<sup>97</sup>FM 22-100, (1990) , 68. It is also interesting that the 1992 Junior Officer Leader Development Survey conducted by the Center for Army Leadership determined that *not a single one* of the 358 officers surveyed regarded "use of available systems" as a competency that was needed for success [US Army, Junior Officer Leader Development Study (JOLDS) Briefing Slides, provided by Dr. Susan Mettelin, Fort Leavenworth, KS, 1993.]

<sup>98</sup>Dave R. Palmer, Summons of the Trumpet: A History of the Vietnam War from a Military Man's Viewpoint (New York: Ballantine Books, 1984) , 142.

<sup>99</sup>Nelsen, "Where Do We Go From Here," 29.

<sup>100</sup>Dennis H. Long, "Command and Control - Restoring the Focus," Military Review 61 (November 1981) : 47.

<sup>101</sup>Vermillion, "Tactical Implications," 10.

<sup>102</sup>US Department of Defense, Joint Pub 1-02 , 77.

<sup>103</sup>Daniel Hahn, "Leadership: The Heart of C2," Military Review 75 (November 1985) : 50.

<sup>104</sup>Leonard P. Wishart, III, "Leader Development and C2," Military Review 70 (July 1990) : 12. See also Joseph E. Noble, "Conflicting Concepts Command, and Control" (Monograph, School of Advanced Military Studies, Fort Leavenworth, KS, US Army Command and General Staff College, 1989).

<sup>105</sup>Frederick W. Timmerman, "Of Command and Control and Other Things," Army (May 1985) : 55.

<sup>106</sup>Vermillion, "Tactical Implications," 2.

<sup>107</sup>FM 100-5 (1986) , 22.

<sup>108</sup>Foss, "Command," 5.

<sup>109</sup>Vermillion, "Tactical Implications," 30.

<sup>110</sup>US Army, Professional Development of Officers Survey, Volume I (Washington, DC: US Government Printing Office, 1985) , 22.

<sup>111</sup>US Army Science Board, 57.

<sup>112</sup>Babbitt et al, Fort Hood Leadership Study, V-2.

<sup>113</sup>Ibid, V-21.

<sup>114</sup>Interview with Dennis Blanton, Inspector General for the 1st Cavalry Division in 1985, Fort Hood, TX, 28 April 1993.

<sup>115</sup>Cowan, "How Low Can You Go?," 24.

<sup>116</sup>Ibid, 24.

<sup>117</sup>Ibid, 24.

<sup>118</sup>Ibid, 41.

<sup>119</sup>Alma G. Steinberg and Julia A. Leaman, The Army Leader Requirements Task Analysis: Commissioned Officer Results (Technical Report 898. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 1990). Reported tasks #C13, C4, C12, C3, C2, and E9, respectively.

<sup>120</sup>George G. Eddy, "Leadership Climate Survey," research conducted at Fort Sill OK, July 1991. In addition to these quantitative data, Dr. Eddy also collected specific comments which addressed various issues of command climate. These data, while illustrative, cannot be presented in their entirety in this thesis due to space considerations. An alternative solution, presenting only selected comments, would present an unbalanced and incomplete picture which might misrepresent the data.

<sup>121</sup>Twohig and Tremble, ARI RP 1580, 38.

<sup>122</sup>Ibid, 10.

<sup>123</sup>T. D. Julien and G. L. Siebold, Unit Leader Assessments of a Joint Readiness Training Center Rotation (Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 1989). Cited by Twohig and Tremble, ARI RP 1580, 31.

<sup>124</sup>Twohig and Tremble, ARI RP 1580, 29.

<sup>125</sup>Vernon Humphrey, "NTC: Command and Control," Infantry 74 (September-October 1984) : 36.

<sup>126</sup>Interview with Dr. Susan Mettlen, Project Officer for JOLDS, Fort Leavenworth, KS, 2 October 1992.

<sup>127</sup>US Army, JOLDS Briefing Slides.

## CHAPTER 3 ENDNOTES

<sup>1</sup> For an explanation of the theory of organizational culture, see Edgar H. Schein, Organizational Culture and Leadership: A Dynamic View (San Francisco: Josey Bass, 1985).

<sup>2</sup> Dandridge M. Malone and Michael Magee, "Jazz Musicians and Algonquin Indians," Military Review 75 (December 1985) : 53.

<sup>3</sup> James G. Hunt and John D. Blair, "Leadership on the Future Battlefield: An Introduction," In Leadership on the Future Battlefield, ed. James Hunt and John Blair. (Washington, DC: Pergamon-Brassey's, 1985) , 7.

<sup>4</sup> Michael J. Saks and Edward Krupat, Social Psychology and its Applications (New York: Harper and Row, 1988) , 355. For a more complete explanation of the theory, see John M. Darley and Bibb Latane, "Bystander Intervention in Emergencies: Diffusion of Responsibility," Journal of Personality and Social Psychology 8 (1968): 377-383.

<sup>5</sup> van Creveld, cited by Burton, "Command and Control," 3.

<sup>6</sup> Steinberg and Leaman, Leader Initiative.

<sup>7</sup> Robert L. Maginnis, "Independence on the Modern Battlefield," Infantry 74 (September-October 1984) : 31.

<sup>8</sup> Cited by US Army, PDOS I, 49.

<sup>9</sup> Richard E. Simpkin, Race to the Swift: Thoughts on Twenty-First Century Warfare (London: Brassey's Defence Publishers, 1985) , 230.

<sup>10</sup> Martin van Creveld, The Training of Officers (New York: Free Press, 1990) , 30.

<sup>11</sup> Nelsen, "Where Do We Go From Here," 7.

<sup>12</sup> Fue H III 2, "German Army Command and Control," 12.

<sup>13</sup> Foss, "Command," 3.

<sup>14</sup>Nelsen, "Where Do We Go From Here," 5; Runals, "Command and Control," 8.

<sup>15</sup>cited by US Army, NTC Lessons Learned 88-1, 20.

<sup>16</sup>Nelsen, "Where Do We Go From Here," 8.

<sup>17</sup>Sidney Siegel, Non-Parametric Statistics for the Behavioral Sciences (New York: McGraw Hill, 1956) , 31.

## CHAPTER 4 ENDNOTES

<sup>1</sup>US Army, RSC DSCPER-46 Part I (February 1993), 12.0.

<sup>2</sup>Saks and Krupat, Social Psychology, 21-22.

<sup>3</sup>Cowan, "How Low Can You Go?," 24.

<sup>4</sup>A. G. Greenwald, "The Totalitarian Ego: Fabrication and Revision in Personal History," American Psychologist, 35 (1980) : 603-618. An interesting integration of research in this area led Greenwald to conclude that when humans write their own history, they are prone to biases of *egocentricity* (everything revolving around us), *benefectance* (self-aggrandizing, selective recall of facts), and *cognitive conservatism* ( tendency to preserve our existing image of ourself, rather than changing it to accommodate new data).

<sup>5</sup>Robert A. Baron and Donn Byrne, Social Psychology: Understanding Human Interaction (Boston: Allyn and Bacon, 1987) , 59.

<sup>6</sup>I use the word "fortunately" to describe this data because the question on peer initiative was added, more or less as an afterthought, to obtain an even total number of questions on the survey.

<sup>7</sup>Saks and Krupat, Social Psychology, 66.

<sup>8</sup>Siegel, Non-Parametric Statistics, 116.

<sup>9</sup>Guilford, cited by Frederick Williams, Reasoning with Statistics (New York: Holt, Rinehart, and Winston, 1968) , 128.

<sup>10</sup>Saks and Krupat, Social Psychology, 549.

<sup>11</sup>US Army, PDOS I, 22.

<sup>12</sup>Blanton interview, 28 April 1993.



## CHAPTER 5 ENDNOTES

<sup>1</sup>US Army, Leader Development Study, A-1.

<sup>2</sup>Willbanks, "Airland Battle Tactical Command and Control," 145.

<sup>3</sup>See endnote 97, Chapter 2.

<sup>4</sup>Ibid, 144.

<sup>5</sup>Kaufman, "Initiative in the U.S. Soldier," 50; Shoffner, Handout, 11.

<sup>6</sup>US Army, Fort Hood Leadership Study, 14. This is contrary to the notion that "true decentralization" can start at the "grass-roots level," as suggested by Willbanks, "Airland Battle Tactical Command and Control," 145.

<sup>7</sup>David S. Blodgett, "On Establishing a Command Climate that Fosters Initiative," Military Review 66 (December 1986) : 77.

<sup>8</sup>Simonson et al, Excellence in the Combat Arms, 46.

<sup>9</sup>US Army, PDOS III, R-4.

<sup>10</sup>US Army, Fort Hood Leadership Study, 21-22; Malone, "Implementation of the Leadership Goal," 11.

<sup>11</sup>Peck, "Doctrine Lost and Found," 36.

<sup>12</sup>Daniel P. Bolger, "Command or Control?," Military Review 70 (July 1990) : 78.

<sup>13</sup>Willbanks, "Airland Battle Tactical Command and Control," 145.

<sup>14</sup>Ibid, 145. US Army, Leader Development Study, 25.

<sup>15</sup>Blodgett, "Command Climate," 77.

<sup>16</sup>Kirkland, "Leadership Policy and Practice," 57.

<sup>17</sup>Blodgett, "Command Climate," 77.

<sup>18</sup>Ibid, 77.

<sup>19</sup>Willbanks, "Airland Battle Tactical Command and Control," 145.

<sup>20</sup>Nelsen, "Where Do We Go From Here?," 12.

<sup>21</sup>Fitton, Quotations, 51.

<sup>22</sup>J. F. C. Fuller, The Foundations of the Science of War (London: Hutchinson & Co., reprint ed., Fort Leavenworth, KS: CGSC Press, 1993) , 335.

<sup>23</sup>Willbanks, "Airland Battle Tactical Command and Control," 144.

<sup>24</sup>Herbert Rosinski, The German Army, cited by Echevarria, "Auftragstaktik," 51.

<sup>25</sup>US Army, BS&L Leadership Quote Library (United States Military Academy: Department of Behavioral Sciences and Leadership, 1991) , 21.

<sup>26</sup>Blodgett, "Command Climate," 77.

<sup>27</sup>Kerkemeyer, "Auftragstaktik," 146.

<sup>28</sup>Echevarria, "Auftragstaktik," 56.

<sup>29</sup>General William Richardson, cited in Nelsen, "Where Do We Go From Here?," 24.

<sup>30</sup>Kaufman, "Initiative in the U.S. Soldier," 49. For an alternative view of Marshall's legacy in contributing to initiative, see Bolger, "Zero Defects," 67.

<sup>31</sup>Burton, "Command and Control," 23.

<sup>32</sup>Gal, A Portrait of the Israeli Soldier, 120.

<sup>33</sup>Willbanks, "Airland Battle Tactical Command and Control," 143; John Mountcastle, "C2 of Armor Units in Combat," Military Review 75 (November 1985) : 38.

<sup>34</sup>D. T. Campbell and D. W. Fiske. "Convergent and Discriminant Validation by the Multitrait-Multimethod Matrix," Psychological Bulletin 56 (1959) : 81-105.

<sup>35</sup>Donald E. Vandergriff, "Encroaching Zero-Defects System," Army 43 (May 1993) : 2.

<sup>36</sup>Fitton, Quotations, 249.

<sup>37</sup>Ibid, 248.

## APPENDIX A

### SURVEYS

This appendix contains samples of the actual surveys administered as part of this thesis. The development of these surveys is discussed in Chapter 3, while findings from the surveys are analyzed in Chapter 4.

Two versions of the survey were utilized. Form 1 is illustrated first, followed by Form 2. The only difference between these surveys is the order in which questions 4 through 29 were asked.

**Leadership Development Survey**

**25 Jan 1993**

Command and General Staff College  
ATTN: ATZL-SWO-E  
Fort Leavenworth, Kansas 66027-6900

**Staff Group Leaders:**

When finished, please collect questionnaires and completed mark-sense forms and return them as a group to room 126 Bell Hall NLT 8 February 1993.

Thank you for your assistance!

POC:

CPT Kevin S. Donofue, CGSOC 10C

Page 1 of 4 pages. Go to page 2.

## LEADER DEVELOPMENT SURVEY: GENERAL INSTRUCTIONS

Thank you for participating in this graduate research into our Army's leader development. This study will provide vital Army officer input into the development of initiative. For the purposes of this survey, **initiative is defined as taking action to best accomplish a mission without waiting for new orders or supervision.**

Participation in this study, which is expected to take about 10 minutes to complete, is completely voluntary. All responses will be confidential and anonymous; the researcher will make no attempt to match responses with individual names.

Please use only the enclosed mark sense form (CGSC Form 96, 1 Aug 87) to indicate your answers. Use only a No. 2 pencil and completely blacken each oval that contains the letter you selected as an answer. If you change an answer, be sure to erase it completely.

Please select only one response to each question.

### ADMINISTRATIVE AND DEMOGRAPHIC INFORMATION

Leave Blocks A through D blank.

Using CGSC Form 96 and a #2 pencil, please indicate the following by marking the appropriate oval in the numbered section of the mark sense form:

1. Your branch group:
  - a. Combat Arms (AD, AR, AV, EN, FA, IN, SF)
  - b. Combat Support (MP, SC, CM, MI)
  - c. Combat Service Support (AG, FI, JA, OD, QM, TC)
  - d. non-OPM (AN, SP, CH, DC, MC, MS, VC)
2. Your basic commissioning 'year group':
  - a. 1983 or earlier
  - c. 1984
  - d. 1985
  - d. 1986
  - e. 1987 or later
3. What was your last assignment? (may also be current assignment if you are on TDY orders)
  - a. command (company/battery/troop/detachment)
  - b. staff (battalion/regiment/brigade/group/division)
  - c. staff (installation or corps and higher level)
  - d. instructor/faculty (school/center)
  - c. other (please describe position on back of mark sense form)

Page 2 of 4 pages. Go to page 3.

COMPLETE QUESTIONS 4-16 ONLY IF YOU HAD ONE OR MORE COMMISSIONED OFFICER SUBORDINATES in your previous assignment. If you had no officer subordinates, please go directly to question 17.

Please use the following scale:

A. ALMOST ALWAYS    B. OFTEN    C. SOMETIMES    D. INFREQUENTLY    E. ALMOST NEVER

4. In your most recent assignment, how often did your officer subordinate(s) display initiative? [Initiative is defined as taking action to best accomplish a mission without waiting for new orders or supervision.]

*This survey is designed to determine what obstacles stand in the way of initiative. How often did each of the following factors, if any, inhibit your officer subordinate(s) from displaying initiative?*

A. ALMOST ALWAYS    B. OFTEN    C. SOMETIMES    D. INFREQUENTLY    E. ALMOST NEVER

5. The officer didn't understand the "big picture"
6. The officer wanted to keep a low profile
7. The officer could not develop a better solution
8. The officer lacked adequate training or experience
9. The officer failed to take responsibility to act
10. The officer believed the original plan or order was still best
11. My unit has an unforgiving, "zero defects" climate
12. The officer did not want to appear disloyal
13. The officer didn't recognize that there was a need to take action
14. The officer lacked confidence in his or her alternative plan of action
15. The officer believed that it was not in his or her best interests
16. There was a lack of trust between the officer and me

CONTINUED ON THE NEXT PAGE

Page 3 of 4 pages. Go to page 4.

**For all remaining questions on this survey, please use the following scale:**

**A. ALMOST ALWAYS   B. OFTEN   C. SOMETIMES   D. INFREQUENTLY   E. ALMOST NEVER**

17. In your most recent assignment, how often did you display initiative? [Initiative is defined as taking action to be . accomplish a mission without waiting for new orders or supervision.]

*How often did each of the following factors, if any, inhibit you from displaying initiative?*

**A. ALMOST ALWAYS   B. OFTEN   C. SOMETIMES   D. INFREQUENTLY   E. ALMOST NEVER**

18. I didn't understand the "big picture"

19. I wanted to keep a low profile

20. I could not develop a better solution

21. I lacked adequate training or experience

22. I failed to take responsibility to act

23. I believed the original plan or order was still best

24. My unit has an unforgiving, "zero defects" climate

25. I did not want to appear disloyal

26. I didn't recognize that there was a need to take action

27. I lacked confidence in my alternative plan of action

28. I believed that it was not in my best interests

29. There was a lack of trust between myself and my superior

30. Finally, in your most recent assignment, how often did your peers display initiative?

**This completes the survey. Please return this questionnaire and your completed mark sense form to your Staff Group Leader. Thank You.**

Page 4 of 4 pages. End of survey.



**Leadership Development Survey**

**25 Jan 1993**

Command and General Staff College  
ATTN: ATZL-SWO-E  
Fort Leavenworth, Kansas 66027-6900

**Staff Group Leaders:**

When finished, please collect questionnaires and completed mark-sense forms and return them as a group to room 126 Bell Hall NLT 8 February 1993.

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Page 1 of 4 pages. Go to page 2.

## LEADER DEVELOPMENT SURVEY: GENERAL INSTRUCTIONS

Thank you for participating in this graduate research into our Army's leader development. This study will provide vital Army officer input into the development of initiative. For the purposes of this survey, initiative is defined as taking action to best accomplish a mission without waiting for new orders or supervision.

Participation in this study, which is expected to take about 10 minutes to complete, is completely voluntary. All responses will be confidential and anonymous; the researcher will make no attempt to match responses with individual names.

Please use only the enclosed mark sense form (CGSC Form 96, 1 Aug 87) to indicate your answers. Use only a No. 2 pencil and completely blacken each oval that contains the letter you selected as an answer. If you change an answer, be sure to erase it completely.

Please select only one response to each question.

## ADMINISTRATIVE AND DEMOGRAPHIC INFORMATION

Leave Blocks A through D blank.

Using CGSC Form 96 and a #2 pencil, please indicate the following by marking the appropriate oval in the numbered section of the mark sense form:

1. Your branch group:
  - a. Combat Arms (AD, AR, AV, EN, FA, IN, SF)
  - b. Combat Support (MP, SC, CM, MI)
  - c. Combat Service Support (AG, FI, JA, OD, QM, TC)
  - d. non-OPM (AN, SP, CH, DC, MC, MS, VC)
2. Your basic commissioning 'year group':
  - a. 1983 or earlier
  - c. 1984
  - d. 1985
  - d. 1986
  - e. 1987 or later
3. What was your last assignment? (may also be current assignment if you are on TDY orders)
  - a. command (company/battery/troop/detachment)
  - b. staff (battalion/regiment/brigade/group/division)
  - c. staff (installation or corps and higher level)
  - d. instructor/faculty (school/center)
  - e. other (please describe position on back of mark sense form)

Page 2 of 4 pages. Go to page 3.

**For all remaining questions on this survey, please use the following scale:**

**A. ALMOST ALWAYS   B. OFTEN   C. SOMETIMES   D. INFREQUENTLY   E. ALMOST NEVER**

**4. In your most recent assignment, how often did you display initiative? [Initiative is defined as taking action to best accomplish a mission without waiting for new orders or supervision.]**

*This survey is designed to determine what obstacles stand in the way of initiative. How often did each of the following factors, if any, inhibit you from displaying initiative?*

**A. ALMOST ALWAYS   B. OFTEN   C. SOMETIMES   D. INFREQUENTLY   E. ALMOST NEVER**

- 5. I didn't understand the "big picture"**
- 6. I wanted to keep a low profile**
- 7. I could not develop a better solution**
- 8. I lacked adequate training or experience**
- 9. I failed to take responsibility to act**
- 10. I believed the original plan or order was still best**
- 11. My unit has an unforgiving, "zero defects" climate**
- 12. I did not want to appear disloyal**
- 13. I didn't recognize that there was a need to take action**
- 14. I lacked confidence in my alternative plan of action**
- 15. I believed that it was not in my best interests**
- 16. There was a lack of trust between myself and my superior**

**CONTINUED ON THE NEXT PAGE**

Page 3 of 4 pages. Go to page 4.

COMPLETE QUESTIONS 17-29 ONLY IF YOU HAD ONE OR MORE COMMISSIONED OFFICER SUBORDINATES in your previous assignment. If you had no officer subordinates, please go directly to question 30.

Please use the following scale:

A. ALMOST ALWAYS    B. OFTEN    C. SOMETIMES    D. INFREQUENTLY    E. ALMOST NEVER

17. In your most recent assignment, how often did your officer subordinate(s) display initiative? [Initiative is defined as taking action to best accomplish a mission without waiting for new orders or supervision.]

How often did each of the following factors, if any, inhibit your officer subordinate(s) from displaying initiative?

A. ALMOST ALWAYS    B. OFTEN    C. SOMETIMES    D. INFREQUENTLY    E. ALMOST NEVER

18. The officer didn't understand the "big picture"

19. The officer wanted to keep a low profile

20. The officer could not develop a better solution

21. The officer lacked adequate training or experience

22. The officer failed to take responsibility to act

23. The officer believed the original plan or order was still best

24. My unit has an unforgiving, "zero defects" climate

25. The officer did not want to appear disloyal

26. The officer didn't recognize that there was a need to take action

27. The officer lacked confidence in his or her alternative plan of action

28. The officer believed that it was not in his or her best interests

29. There was a lack of trust between the officer and me

30. Finally, in your most recent assignment, how often did your peers display initiative?

**This completes the survey. Please return this questionnaire and your completed mark sense form to your Staff Group Leader. Thank You.**

Page 4 of 4 pages. End of survey.

## APPENDIX B

### STATISTICAL ANALYSIS

The purpose of this appendix is to provide the reader with greater depth and specificity in the various statistical analyses employed in Chapter 4. In the first three sections of this appendix, I will report and explain various descriptive statistics, significance testing, and correlational analyses which are used in Chapter 4. In the final section, I will provide survey validation information (primarily of use to future researchers). All statistical analyses were performed by using the statistical program licensed to the Command and General Staff College, the Statistical Package for the Social Sciences (SPSS-X) computer program.

#### Section I. Descriptive Statistics

Descriptive statistics are frequently used to represent certain overall characteristics of a body of data.<sup>1</sup> Common forms of descriptive statistics include:

- A. portrayal of the frequency of responses to each answer.
- B. measures of central tendency (mean, median, and/or mode).
- C. measures of dispersion of the data (standard deviation or variance).

These descriptive statistics may help us understand how subjects rated themselves, their subordinate officers, and their peers regarding likelihood of displaying initiative. These data are reported in Tables 1, 2, and 3 of this appendix.

It is common to use these statistics to draw conclusions and make comparisons with other descriptive statistics, although one must be cautious in such interpretations. For instance, it is difficult to understand a "mean" (an arithmetic average) when using an

ordinal scale. Since any subject's response was limited to five possible responses to which we have assigned a numerical integer value, a mean of "2.24" is difficult to interpret.

**TABLE 1**

**Ratings of Self Initiative**

"In your most recent assignment, how often did you display initiative? [Initiative is defined as taking action to best accomplish a mission without waiting for new orders or supervision.]"

1. Almost Always	2. Often	3. Sometimes	4. Infrequently	5. Almost Never
80 (33.1%)	118 (48.8%)	27 (11.2%)	13 (5.4%)	4 (1.7%)

Based upon 242 responses. mean=1.94, standard deviation=.90, mode=2

**TABLE 2**

**Ratings of Subordinate Initiative**

"In your most recent assignment, how often did your officer subordinate(s) display initiative? [Initiative is defined as taking action to best accomplish a mission without waiting for new orders or supervision.]"

1. Almost Always	2. Often	3. Sometimes	4. Infrequently	5. Almost Never
22 (11.5%)	104 (54.5%)	47 (24.6%)	14 (7.3%)	4 (2.1%)

Based upon 191 responses (this number is smaller than the number who assessed their own initiative above because respondents who had not had commissioned officer subordinates were asked not to respond to this question) mean=2.34, standard deviation=.85, mode=2

If the reader wishes to draw conclusions about these data based upon a measure of central tendency, the modal value of "2" tells us that the most frequent response in answer

to these questions was "often," this is intuitively obvious to the casual observer.

However, since the modal values are "2" for each of the responses reported in Tables 1, 2, and 3, we will employ more complex statistical methods, detailed in the following section, to discover differences in the patterns of responses for these data.

**TABLE 3**

**Ratings of Peer Initiative**

"Finally, in your most recent assignment, how often did your peers display initiative?"

1. Almost Always	2. Often	3. Sometimes	4. Infrequently	5. Almost Never
24 (10.3%)	101 (43.5%)	81 (34.9%)	20 (8.6%)	6 (2.6%)

Based upon 232 responses. mean=2.50, standard deviation=.89, mode=2

**Section II: Significance Testing**

It is entirely possible that an effect or trend in data may be produced strictly by chance; researchers may mistakenly interpret meaning where none exists. Therefore, statistical significance testing is used to compare obtained results with chance expectation.<sup>2</sup> In conducting testing of this type, we are balancing the risk of mistakenly concluding that the results confirm a hypothesis with the risk of mistakenly concluding that the hypothesis is not supported by the data. As we have noted in Chapter 4, we have agreed to accept a risk of five times in one-hundred that we will conclude a hypothesis is supported when the effect really occurred by chance.

Significance testing can be understood in terms of a normal distribution. In a perfectly "normal" population of data, we expect data to be distributed symmetrically, with

a greater density of data near the mean of the data, and increasingly smaller densities farther from the mean. The degree to which the density falls off as a function of the distance from the mean can be assumed by knowing the standard deviation--a measure of the data's dispersion. About 68 percent of the data will lie within one standard deviation of the mean, and about 95 percent of the data lie within two standard deviations. A graphic representation of the data, in which the horizontal axis represents all the different values of the variable, and the vertical axis depicts the density of responses for value, would appear as a bell-shaped curve.

A normal curve may vary in the degree to which the density drops off from the mean, as indicated by the standard deviation. Therefore, statisticians have adopted the "Z" statistic to help define the steepness of a normal curve. This statistic, based upon an ideal normal curve with a mean of zero and a standard deviation of one, is used to determine the likelihood that a variable would have any particular value. In effect, we "normalize" the data by converting it into a value that fits a standard curve, without losing the unique characteristics of that data.

Since the area under the curve represents the total distribution of the variable's values, any area cut off from the curve represents a probability that the variable would have the value in that range of the distribution. We will apply this principle in our significance testing. We have stated that we do not want to accept a hypothesis as true unless we can demonstrate that the observed pattern would not occur by chance more than five times in one-hundred. Using the Z-values from a normal distribution, we will establish whether or not the observed value is indeed different enough from the expected value that we would expect this difference to occur less than five times in one-hundred.

Before analyzing actual data from our research, an example of the use of a normal distribution to test for significance might help illustrate this technique. For instance, we might wish to prove that CGSOC graduates have more college-level education than the



overall population of Army officers. In this example, assume that we know from previous research that the average college-level education of Army officers is 5.0 years ( $\mu=5.0$ ).

It would be difficult to track down every single CGSOC graduate and determine how many years of college he or she has attended, so we will randomly sample 100 officers. From these data, we may then compute the sample mean ( $\bar{X}$ ) for these 100 CGSOC graduates, which we determine to be 5.5 years of college-level education. Even though it is obvious that 5.5 years exceeds 5.0 years, we must determine if this larger sample value of 5.5 is simply caused by random fluctuation in our relatively small sample. In other words, we seek to be confident that the observed difference in a sample of 100 officers reflects a real difference in the total population of CGSOC graduates. We accomplish this by "normalizing" the difference between these two values by taking sample size and standard deviation into account.

If we can demonstrate, through statistical significance testing, that  $\bar{X}$  is not equal to  $\mu$ , but is in fact greater than  $\mu$ , then we can say with confidence that the average years of college-level education for CGSOC graduates is significantly larger than what we believe to be the average college-level education of the entire population of officers. In the language of statistics, the hypothesis we want to provide support for is labeled the alternate hypothesis, or " $H_1$ ." We provide support for this hypothesis by demonstrating that there is no support for the "null hypothesis" (or  $H_0$ ), which states that the sample mean ( $\bar{X}=5.5$ ) does not differ significantly from an expected mean ( $\mu$ ) of 5.0. Thus, in this example,  $H_0: \mu=5$ ;  $H_1: \mu>5$ .

Given a sample of 100 values with a sample mean ( $\bar{X}$ ) of 5.5 and a sample standard deviation ( $s$ ) of 1.0 (which we will assume to be equal to  $\sigma$ , the population standard deviation), we may normalize the data by using the equation:

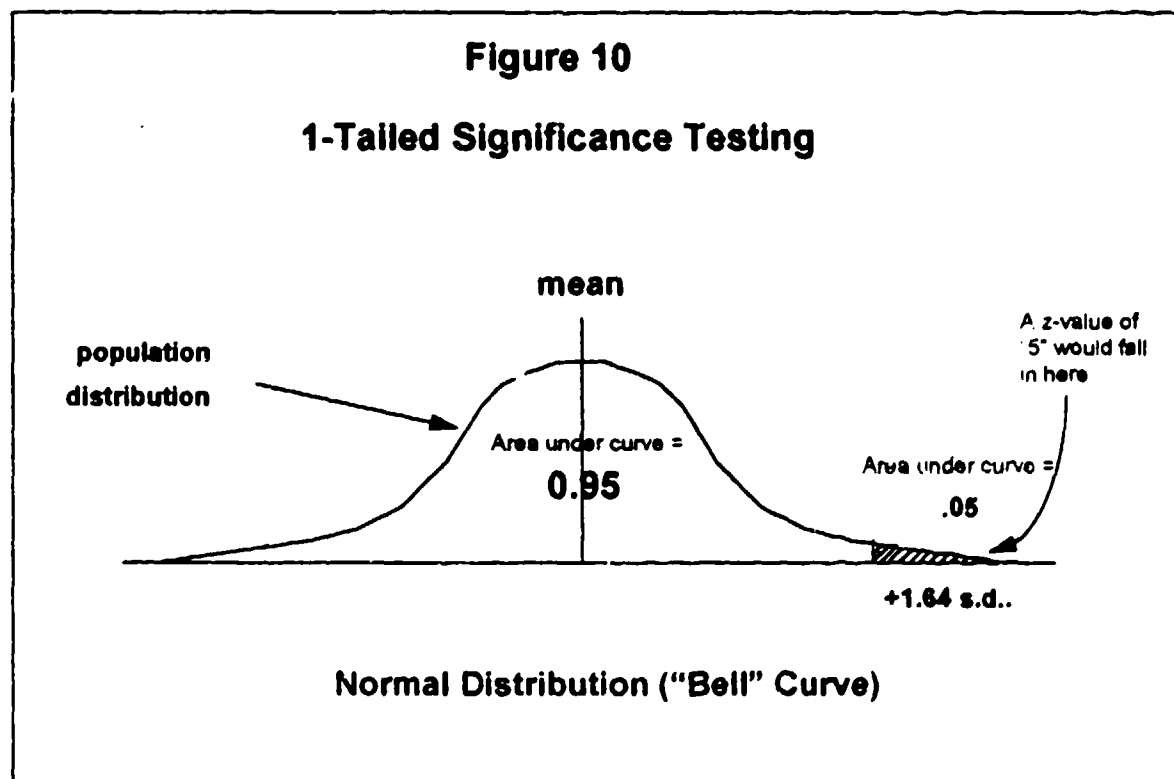
$$Z = (\bar{X} - \mu) / (\sigma / \text{square root of } n)$$

$$Z = (5.5 - 5) / (1/10)$$

$$Z = 5$$

First, we must establish a significance level (p-value) of .05. In other words, a comparison between two variables should not reveal a predicted pattern to occur by chance any more often than one survey out of twenty for a "p-value" of .05. If, after passing a significance test, the predicted pattern does in fact occur, we are willing to conclude that the pattern represents an actual difference and is not simply due to chance. In doing so, we are still accepting a .05 probability that demonstrated statistical support for the hypothesis is in fact due to chance.

Since we wanted to show that the mean is greater than 5, we will be conducting a "one-tailed" significance test (see Figure 10). In this case, a Z-value of 1.64 or higher



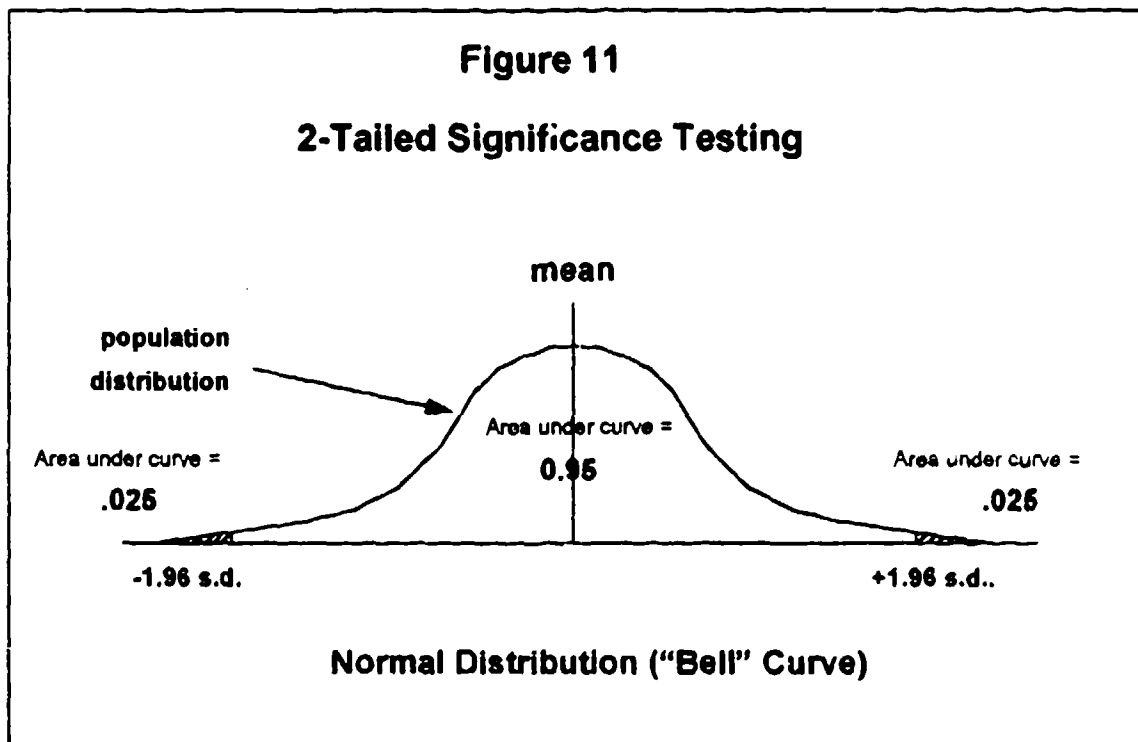
indicates that while there was only a .05 probability that a mean greater than 5 would be observed, it did in fact occur. Since our computed Z-value of 5 is greater than the critical value of 1.64, we would find support for our hypothesis ( $H_1$ ). If the data fails to achieve a Z-value of at least 1.64, then we cannot say that there is a difference; the "null hypothesis" ( $H_0$ ) is supported. In the language of statistics, the area under the curve defined by the critical interval of "Z" is greater than or equal to 1.64" is called the "region of rejection of the null hypothesis." As this label implies, we gain support for our hypothesis by demonstrating that the null hypothesis cannot be supported (this is a stronger argument than one which fails to reject the null hypothesis).

When we predict a difference, but we do not know which direction the difference might be in (for instance, officers will rate peers differently than subordinates), we conduct a "two-tailed" significance test (see Figure 11). In this case, a Z-value of either 1.96 standard deviations above the mean or -1.96 standard deviations below the mean would indicate significance. The areas cut off by each of these intervals is equal to a cumulative probability of .025. By summing these two areas, we achieve the standard of .05.

Because ordinal data was collected in this study, we will be using a branch of statistics known as nonparametric statistics. While nonparametric statistics are not based upon assumptions of normality, the central limit theorem suggests that when employing large numbers of data (more than 25)<sup>3</sup> even non-normally distributed data approach normality.

Our first hypothesis states that officers rate themselves as more likely to display initiative than their subordinate officers. The comparison implied by our first hypothesis is commonly known as a "within-subject" comparison, as opposed to a "between-subject" comparison. This distinction affects the assumptions we can make about the appropriate statistical tests. Since each officer's rating of subordinate and self initiative is related, we cannot assume independence. The appropriate statistical procedure to test significance in

two related nonparametric variables is known as the "Wilcoxon matched-pairs signed-ranks test."<sup>4</sup> This test will compare each officer's responses to the two questions presented in Tables 1 and 2 (presented earlier in this appendix) in order to determine whether hypothesis 1 can be supported.



In comparing the ratings of self to subordinate initiative, it might seem logical to simply compare the distributions of responses shown in Tables 1 and 2. However, this procedure is not valid, since two significantly different samples are being compared. In one case, virtually every officer (97.2 percent) who took the survey assessed their own initiative, but only 76.7 percent responded to the question regarding subordinate initiative. This difference occurred because not every officer attending CAS3 was in a duty position

in which they supervised other commissioned officers. A more appropriate comparison between the officer's own and the officer's subordinate initiative was made by comparing the responses of only those who responded to both questions (75.9 percent).

The Wilcoxon matched-pairs signed-ranks test (Tables 4, 5, and 6) pairs the self and subordinate initiative in each response, then makes an assessment of both the direction of the difference and the magnitude of the difference. If the two scores of a pair are equal, the pair is dropped from the analysis.

As an example of this analysis,<sup>5</sup> consider this imaginary data set of five officers' ratings:

$H_0$ : Self Initiative = Subordinate Initiative  
 $H_1$ : Self Initiative > Subordinate Initiative

Ratings	Officer				
	A	B	C	D	E
Subordinate Initiative	3	3	3	2	1
Self initiative	3	2	1	1	1
Computations:					
difference	0	1	2	1	0
rank (based on absolute value)		1.5	3	1.5	

(since there are two difference scores with an absolute value of 1, and these two would have had the ranks 1 and 2, each of them is being assigned a rank of 1.5.)

$N=3$  (ties are not treated)

Sum of ranks for positive values ( $T$ )= 6.0

$$\mu_t = \frac{N(N+1)}{4} = 3$$

$$\sigma_t = \text{square root of: } \frac{N(N+1)(2N+1)}{24} = 1.87$$

$$Z = \frac{T - \mu_t}{\sigma_t} = \frac{6.0 - 3}{1.87} = 1.60$$

Hence, in this example, the Z-value was computed to be 1.60. What does this mean? For a one-tailed hypothesis (officers will rate themselves as more likely to display initiative than their subordinates), the critical region for a .05 probability of the observed pattern occurring by error is  $Z > 1.64$ . In this example, the Z-value fails to reach this critical region, meaning that we have failed to disprove the null hypothesis (which is necessary if we are to prove our alternative hypothesis).

TABLE 4

Wilcoxon Matched-pairs Signed-ranks Test Comparing Self Initiative  
with Follower Initiative

$H_0$ : Officers will not rate themselves as more likely to display initiative than their subordinates.

$H_1$ : Officers will rate themselves as more likely to display initiative than their subordinates.

$\mu_t$	Cases
56.33	85 - ranks (Self initiative is less than follower initiative)
59.04	28 + ranks (Self initiative is greater than follower initiative)
	76 Ties (Self initiative equals follower initiative)
	189 Total (N)

$Z = -4.4906$

In this test, the Z-value is less than -1.64, demonstrating support for the hypothesis that officers rate themselves more likely to display initiative than their subordinates.

Note: "greater than" and "less than" should not be interpreted literally. These comparative statements refer to the ordinal rating; a lower number indicates a greater degree of initiative.

TABLE 5

Wilcoxon Matched-pairs Signed-ranks test Comparing Self Initiative with Peer Initiative

H<sub>0</sub>: Officers will not rate themselves as more likely to display initiative than their peers.

H<sub>1</sub>: Officers will rate themselves as more likely to display initiative than their peers.

$\mu_t$	Cases
72.35	26 -ranks (Peer initiative is less than self initiative)
72.53	118 +ranks (Peer initiative is greater than self initiative)
	84 Ties (Self initiative equals peer initiative)
	228 Total (N)

Z= -6.6590

In this test, the Z-value is less than -1.64, demonstrating support for the hypothesis that officers rate themselves more likely to display initiative than their peers.

Note: "greater than" and "less than" should not be interpreted literally. These comparative statements refer to the ordinal rating; a lower number indicates a greater degree of initiative.

The previous tests have all been "within-subject" comparisons of selected data. In the case where we want to test a hypothesis involving differences between subjects, we can assume independence. The Mann-Whitney U test (Table 7) is the appropriate statistical technique to use when conducting significance testing between two independent samples.<sup>6</sup>

In this case, we wish to compare the difference between ratings of self and subordinate initiative between different versions of the survey. To apply the U test, we must first combine the data from both these groups, then rank these scores in order of increasing size. The value of U is given by the number of times that a score in the Form 1 group is ranked above a score from the Form 2 group.

TABLE 6

Wilcoxon Matched-pairs Signed-ranks Test Comparing Peer Initiative  
with Follower Initiative

$H_0$ : Officers will not rate peer initiative and subordinate initiative differently.

$H_1$ : Officers will rate peer initiative and subordinate initiative differently.

$\mu_t$	Cases
53.83	41 - ranks (Peer initiative is less than follower initiative)
52.47	64 + ranks (Peer initiative is greater than follower initiative)
	73 Ties (Peer initiative equals follower initiative)
	<hr/> 178 Total (N)

$Z = -1.8398$

This test was 2-tailed because no direction was predicted for the difference between ratings of peer and subordinate initiative. In this test, the  $Z$ -value fails to achieve a critical value of 1.96 or -1.96; hence, the null hypothesis (that there is no difference in how officers rate peer initiative and subordinate initiative) is supported.

Note: "greater than" and "less than" should not be interpreted literally. These comparative statements refer to the ordinal rating; a lower number indicates a greater degree of initiative.

For example, consider this fictitious data set, in which Form 1 = 4 cases and Form 2 = 4 cases. The "scores" here actually represent the difference between the ratings of subordinate and self initiative. For example, the first Form 1 score of "+1" indicates that that officer rated his subordinate as one integer on the ordinal scale higher in initiative than he rated his own initiative; he might have responded that he "almost always" displays initiative, while his subordinate "often" displays initiative.



Form 1 scores:	+1	+1	0	+2
Form 2 scores:	0	+1	+1	0

The U statistic is determined by ranking these scores in order of increasing size without losing the identity of each score:

Score	Form
0	2
0	2
0	1
1	2
1	2
1	1
1	1
2	1

Now, considering each Form 2 score, we count the number of Form 1 scores which precede it in the rank order. No Form 1 score precedes a Form 2 value of 0. For a Form 2 score of 1, a single Form 1 value of zero precedes it. There is no Form 2 value of 2 or higher, so we stop here. Next, we sum these results up for a U value of  $0+0+1=1$ . Knowing the value of U and the number of cases from each grouping ( $n_1$  and  $n_2$  both equal 4), we may compute the value of Z by substituting the following formula:

$$\mu_U = \frac{n_1 n_2}{2} = 8$$

$$\sigma_U = \frac{\text{square root of: } (n_1 n_2)(n_1 + n_2 + 1)}{12} = 3.46$$

$$Z = \frac{U - \mu_U}{\sigma_U} = -2.023$$

Our Z-value is - 2.02. Since our hypothesis is a two-tailed test, the critical Z-value is 1.96 or -1.96. Therefore, in this example, the null hypothesis is rejected, and we would find support for the hypothesis that the responses were affected by the version of the form.

**TABLE 7**

**Mann-Whitney U Test Comparing Rating Differences  
as a Function of Form (Survey Version)**

**H<sub>0</sub>:** Officers' ratings of the difference between self and subordinate initiative will not be affected by the order in which the questions are asked (version of form).

**H<sub>1</sub>:** Officers' ratings of the difference between self and subordinate initiative will be affected by the order in which the questions are asked (version of form).

$\mu_u$	Cases	
85.57	99	Form 1
105.38	90	Form 2
	189	Total (N)

U=3521.0    Z=-2.6295    2 tailed P=.0086

This test was 2-tailed because no direction was predicted for the whether the self and subordinate initiative ratings would be more different on Form 1 or Form 2. In this test, the Z-value achieves a value of -2.63, which is beyond the critical values of 1.96 or -1.96, hence, the hypothesis that the form did affect the difference between self and subordinate ratings is supported.

### Section III: Correlational Analysis

A correlation is simply a measure of the relationship between two variables. When working with ordinal data, the proper measure of correlations is computed using the Spearman rank order coefficient.<sup>7</sup>

For instance, assume we wish to determine the correlation between self and subordinate initiative for a sample of officers. We compute the following data:

Officer	Self Initiative		Subord Initiative		$d_i$	$d_i^2$
	Score	Rank	Score	Rank		
A	2	3	3	4.5	-1.5	2.25
B	3	5	2	3	2	4
C	1	1	1	1.5	-.5	.25
D	2	3	1	1.5	1.5	2.25
E	2	3	3	4.5	-1.5	2.25
						$\sum d_i^2 = 11; N = 5$

The formula for this measure of correlation ( $r_s$ ), where N represents the number of subjects, and  $d_i$  represents the difference between the two ranks, is:

$$r_s = 1 - \frac{6 \sum_{i=1}^N d_i^2}{N^3 - N} = 1 - \frac{6(11)}{5^3 - 5} = 1 - .55 = .45$$

In this example, we observe a correlation of .45 between officers' ratings of subordinate initiative and self initiative, indicating that a moderate correlation exists.<sup>8</sup>

Each correlation is also tested for significance against the null hypothesis that there is no correlation between the two variables ( $H_0: r_s = 0$ ). In the previous section, we

adopted a p value of .05. However, since the majority of the correlational analysis in this research is exploratory in nature, a more restrictive standard p-value of .01 has been set. This is a more cautious standard that will reduce the likelihood that we will "discover" correlational relationships which do not truly exist.

Correlations among the twelve components which were hypothesized to inhibit initiative and the overall rating of the likelihood of initiative are portrayed in the following tables. Table 8 considers self initiative, while Table 9 considers subordinate initiative. These tables demonstrate which components of initiative appear significantly related with overall ratings of initiative (as indicated by a "\*\*"). A discussion and interpretation of these tables is contained in Chapter 4.

**TABLE 8**

**Correlations Between Self Initiative and the Various Components**

1. I didn't understand the "big picture"	-.1579
2. I wanted to keep a low profile	-.2459*
3. I could not develop a better solution	-.1645
4. I lacked adequate training or experience	-.1407
5. I failed to take responsibility to act	-.3083*
6. I believed the original plan or order was still best	.0179
7. My unit has an unforgiving, "zero defects" climate	.0268
8. I did not want to appear disloyal	-.0258
9. I didn't recognize that there was a need to take action	-.3335*
10. I lacked confidence in my alternative plan of action	-.3285*
11. I believed that it was not in my best interests	-.2345*
12. There was a lack of trust between myself and my superior	-.1782

\* indicates significance at the p = .01 level

Negative correlations expected due to nature of scale; components which are more likely to inhibit initiative make it less likely that initiative will be displayed.

Table 10 compares the relationships between each of the components hypothesized to inhibit self initiative with the same components, as applied to subordinate initiative. "SC" refers to self initiative, while "FC" refers to follower (subordinate) initiative. Components SC1 through SC12 are listed on Table 8; FC1 through FC12 are listed on Table 9. For instance, the relationship between an officer's responses to "I didn't understand the 'big picture'" and "The [subordinate] officer didn't understand the 'big picture,'" or "SC1-FC1", is  $r_s = .2373$ .

TABLE 9

Correlations Between Subordinate Initiative and the Various Components

1. The officer didn't understand the "big picture"	-.2967*
2. The officer wanted to keep a low profile	-.3626*
3. The officer could not develop a better solution	-.2293*
4. The officer lacked adequate training or experience	-.2686*
5. The officer failed to take responsibility to act	-.3928*
6. The officer believed the original plan or order was still best	-.0886
7. My unit has an unforgiving, "zero defects" climate	-.1059
8. The officer did not want to appear disloyal	.0437
9. The officer didn't recognize that there was a need to take action	-.2778*
10. The officer lacked confidence in his or her alternative plan of action	-.2873*
11. The officer believed that it was not in his or her best interests	-.1227
12. There was a lack of trust between the officer and me	-.3025*

\* indicates significance at the  $p = .01$  level  
 Negative correlations expected due to nature of scale: components which are more likely to inhibit initiative make it less likely that initiative will be displayed.

These data provide some insight into the degree to which a given component permeates through the levels of the chain of command. In other words, to what extent does a given component appear to affect both self and subordinate initiative relatively more uniformly than another? While no hypotheses were made regarding the nature of such relationships, the implications of such an analysis can yield insights into whether a component is viewed as a larger, macro effect, or a smaller, more individually influenced component. This analysis is pursued in Chapter 4.

TABLE 10

Intercorrelations Between Components of Self and Subordinate Initiative

SC1-FC1	.2373*
SC2-FC2	.3129*
SC3-FC3	.3667*
SC4-FC4	.2886*
SC5-FC5	.2699*
SC6-FC6	.3412*
SC7-FC7	.7298*
SC8-FC8	.4551*
SC9-FC9	.3142*
SC10-FC10	.2312*
SC11-FC11	.4053*
SC12-FC12	.3684*

SC = self component; FC = follower component

\* indicates significance at the  $p = .01$  level

#### Section IV: Survey Validation: A Note for Future Researchers

Any time a new survey is administered, effort must be given to validating the survey instrument itself. This is no less true for the current survey. The following section is provided to assist future researchers wishing to build from my survey in this line of investigation.

A reliability analysis of the twelve self initiative components and the twelve subordinate initiative components yielded reliability coefficients (Cronbach's Alphas) of .7456 and .8116, respectively. In general, experience has shown that these coefficients are "highly serviceable" for measuring the average characteristics of groups.<sup>9</sup> These ratings suggest that there is some internal consistency to the way in which officers responded to each set of twelve components, further indicating that the survey respondents were not answering the questions without some genuine consideration of their responses.

This encouraging finding, however, does not imply that the set of twelve components used on the survey was necessarily the most efficient set. In Chapter 4, we noted the difficulty of explaining observed correlations for Component 12 (there was a lack of trust between the officer and me), in that this measure did not demonstrate the same patterns and relationships as the other components assumed to be associated with Screen 5 (Personal Risk). One conclusion that we might draw, from both the self initiative and subordinate initiative correlations, is that this component is not associated with Screen 5. However, the correlation coefficient between Component 12 and Component 11 (the primary measure of Screen 5) is .47. This is the strongest correlation of Component 12 with any of the other components. This suggests that there is in fact a significant association between Component 12 and with Screen 5.

Measures of central tendency (means, modes, medians) have generally been avoided in this analysis, because of the difficulty in interpreting the means of ordinal data. However, given the difficulty I was having in understanding the response to Component

12, I elected to investigate further by examining its mean response score. This component had the highest mean (4.40) for subordinate initiative, and the second-highest mean (4.18) for self-initiative. Since a higher value indicates a decreased likelihood that a component stifles initiative, this statistic implies that of all the components, respondents rated "there was a lack of trust between the officer and me" as the least likely reason for a subordinate not displaying initiative. Perhaps the issue of trust was rarely an inhibitor, but I am unable to draw any clear conclusion about the meaning of Component 12's associations.

While the results for Component 12 defied comprehension, Components 6, 7, and 8 failed to associate themselves significantly with either self or subordinate initiative. In Chapter 4, we discussed the implications of Component 7's (My unit has an unforgiving, "zero defects" climate) failure to correlate with initiative.

A different kind of problem may have emerged with Component 6 (I believed the original plan or order was still best). It is my conclusion, after reviewing the manner in which Component 6 failed to associate itself strongly with initiative, that some survey respondents may have misinterpreted this component to mean that the original plan or order really was still best; hence, no initiative was called for. Such an interpretation conflicts with the manner in which initiative was defined on the survey, but it is possible that some did not recognize the flaw in such an interpretation.

Some support for this suspicion can be gained by resorting once again with caution to an interpretation of measures of central tendency. We note that the mean value of the response to Component 6 was the lowest value for both subordinate (3.16) and self-initiative (3.11). Since a lower value indicates an increased likelihood that a component stifles initiative, this implies that of all the components, respondents rated "I believed the original plan or order was still best" as the most likely reason for not displaying initiative. Yet, it failed to correlate with the likelihood of displaying initiative.



The failure of Component 7 (My unit has an unforgiving, "zero defects" climate) to relate significantly to either self or subordinate initiative might lead one to also assume that this is an ineffective variable for determining the components of initiative. However, the fact that this variable directly assessed a central issue of this thesis has profound implications on the overall findings from this study. Therefore, Component 7's failure is discussed in the Chapter 4 section entitled "An Important 'Negative' Finding."

It might be wise to consider dismissing Component 8 (I did not want to appear disloyal) from future use. In fact, given the problems we had in understanding the only other tertiary measure, perhaps we can conclude that the labeling of these components as tertiary measures was farsighted, in that they do not turn out to be adequate (or at least understandable) predictors of initiative.

In some cases, even the precise wording of components was no guarantee that the findings would be interpretable. For instance, for Component 2, use of the words "keep a low profile" might have caused it to be related to both the notion of responsibility and the notion of command climate. This was a "first cut" of components; future lists should be refined using this research as a basis.

An exploratory factor analysis was also conducted to look for the underlying factors that can be distilled from a larger set of components. The mathematical theory behind factor analysis is complex, and requires a spatial, geometric grasp of data; however, I will attempt to explain the basic principles of the technique. Factor analysis takes the variance defined by the correlations among a set of measures and attempts to allocate the variance into a smaller set of underlying hypothetical variables, or "factors."<sup>10</sup>

In doing so, we must recognize that a factor analysis is constrained by the survey-- it can only tell us if and how well the hypothesized components cluster together to form the underlying dimensions (factors) behind the twelve measures that we have created.<sup>11</sup> Since we have just inferred that several of the questions on the survey were poor, we are

probably well advised to treat these factor analyses as possible indicators of patterns, but not as stand-alone proof for any conclusions.

In attempting to discover the underlying factorial structure of this set of components, a factor analysis first creates a matrix of the intercorrelations between all the components being considered; in our case, this consisted of comparing the components SC1 through SC12 (Table 11), with the "parallel" components FC1 through FC12 (Table 12). For instance, SC1 is correlated against FC1, SC2 against FC2, etc.

TABLE 11			
Factor Analysis of Self Initiative			
	Factor A	Factor B	Factor C
1. I didn't understand the "big picture"	.55731	.23254	-.07828
2. I wanted to keep a low profile	.50467	.34223	.07283
3. I could not develop a better solution	.57953	-.14999	.34091
4. I lacked adequate training or experience	.64118	-.03183	.04702
5. I failed to take responsibility to act	.68286	.06177	.02486
6. I believed the original plan or order was still best	.13487	-.04013	.85560
7. My unit has an unforgiving, "zero defects" climate	-.10025	.76610	.21001
8. I did not want to appear disloyal	-.02311	.41484	.61800
9. I didn't recognize that there was a need to take action	.68141	.01195	.08819
10. I lacked confidence in my alternative plan of action	.77148	.14800	-.00413
11. I believed that it was not in my best interests	.50408	.50943	.17958
12. There was a lack of trust between myself and my superior	.19934	.77142	-.12713

Note: Factors A, B, and C together account for 52.8 percent of the total variance created by the twelve components.

The next step of a factor analytic technique is to rotate this intercorrelation matrix in all possible directions until a vector can be found which is most strongly correlated with the data in the intercorrelation matrix. This procedure is called a "varimax rotation." It should be stressed that this vector, which we will label "Factor A," is a hypothetical construct that is unlikely to be represented by any one component in the original matrix. It is up to us to define, label, and interpret what this variable might be.

After Factor A has been discovered, the matrix is again rotated to find the next strongest underlying factor independent of Factor A, which we have labeled "Factor B." The search for underlying factors continues in this manner until the strength of the underlying variables is no greater than the expected strength of one the original twelve components. In factor analyses of both self and subordinate initiative, a total of three underlying and independent constructs were discovered using this technique; the correlations (or, as they are frequently called, "loadings") of each original component with the discovered factors is reported in Figure 11 for self initiative and Figure 12 for subordinate initiative. Both of these three-factor models could explain more than half of the variance in the entire twelve component set.

As an example, consider the factor analysis of self initiative reported in Table 11. A rotation of an intercorrelation matrix of the twelve components found a vector which was most strongly correlated with the twelve components (or, in other terms, accounted for more variance in the model than any other vector). This vector is labeled "Factor A." The correlation between the newly discovered "Factor A" and each of the twelve components is then reported. For Component 1 (I didn't understand the "big picture"), the reported correlation with Factor A is .5573.

TABLE 12

## Factor Analysis of Subordinate Initiative

	Factor A	Factor B	Factor C
1. The officer didn't understand the "big picture"	.62607	.18871	.05655
2. The officer wanted to keep a low profile	.43795	.42021	.22792
3. The officer could not develop a better solution	.52402	.11248	.56329
4. The officer lacked adequate training or experience	.68313	-.12526	.37188
5. The officer failed to take responsibility to act	.73483	.17982	-.05875
6. The officer believed the original plan or order was still best	.10440	.23349	.74373
7. My unit has an unforgiving, "zero defects" climate	.10618	.70624	.08241
8. The officer did not want to appear disloyal	-.05788	.77719	.13069
9. The officer didn't recognize that there was a need to take action	.80541	.02024	.08950
10. The officer lacked confidence in his or her alternative plan of action	.78956	.19824	.17792
11. The officer believed that it was not in his or her best interests	.45841	.54619	.00541
12. There was a lack of trust between the officer and me	.41214	.38763	-.38246

Note: Factors A, B, and C together account for 56.1 percent of the total variance created by the twelve components.

My original model would suggest that there should be five independent factors--one representing each screen. However, when all twelve components are considered, the factor analysis derives only three factors. This is where the most difficult step in factor analysis begins--interpreting the meaning of these discovered underlying structures.

Because of the method of factor rotation and extraction, Factor A accounted for the most variance in the overall factor matrix, followed by B, then C; this ranking helps us understand the "weight" of each of the factors.

For both subordinate and self initiative, the components that show correlations greater than .6 on Factor A are Components 4, 5, 9, and 10.<sup>12</sup> Component 1 achieves this standard for subordinate initiative, but not self initiative. These components relate to a fairly wide range of inhibitors that correspond with Screens 1, 2, 3, and 4 on my model.

Component 7 loaded most consistently with Factor B, with Component 8 also achieving a high loading for subordinate initiative, and Component 12 achieving a high loading for self initiative. Each of these Components are measures of Screen 5 of my model. Finally, Factor C seems to correlate most highly with Component 6.

Now, we will attempt to comprehend the meaning of each of these discovered factors, and attempt to assign a descriptive label to each. In both subordinate and self factor analyses, the first two factors appear to roughly correspond, in order of weight, to a measure of personal competence and responsibility, and a measure of command climate. In a broad sense, it appears that officers do differentiate between the micro (individual) and macro (organizational) factors which may inhibit initiative, although these data suggest that they do not generally make distinctions among Screens 1, 2, 3, and 4, which are all components of the micro approach. However, this is a highly subjective conclusion; no "rule" exist for assigning labels (and hopefully, some sense of meaning) to discovered factors; it is always possible that the most appropriate descriptive term does not exist.

Factor C is easy to interpret, since it appears to be driven by Component 6: it is apparently a measure of whether the officer felt the original plan or order was still best. This is hardly good news, though. As we noted in the previous section, Component 6 was problematic, and appears to have assessed whether or not the officer felt there was an

appropriate opportunity to display initiative, not whether or not the officer had confidence in his or her alternative plan. The emergence of Factor C as an independent factor only strengthens the earlier conclusion that something was being assessed here that was not part of Screen 4, which was picked up by Factor A. Hence, Component 6 needs to be eliminated in future research.

To help better understand the underlying structure of initiative, the current set of twelve components can be revised and hopefully improved upon. We have just addressed this issue regarding Component 6. Researchers may also choose to eliminate or rephrase those components that "load" similarly on more than one factor, making them difficult to interpret. For this reason, if follow-on research were to be conducted attempting to explore the three factors uncovered in the factor analyses, Factors 2 and 12 might also be candidates for revision or replacement.

## APPENDIX B ENDNOTES

<sup>1</sup>Williams, Reasoning with Statistics, 7.

<sup>2</sup>Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart, and Winston, 1964), 184. See also Ramon E. Henkel, Tests of Significance (Beverly Hills, CA: Sage, 1976).

<sup>3</sup>Paul G. Hoel and Raymond J. Jesson, Basic Statistics for Business and Economics (New York: John Wiley and Sons, 1982), 174.

<sup>4</sup>Siegel, Non-Parametric Statistics, 75.

<sup>5</sup>Ibid, 75-83.

<sup>6</sup>Ibid, 116.

<sup>7</sup>Delbert C. Miller, Handbook of Research Design and Social Measurement (New York: David McKay, 1964), 79.

<sup>8</sup>Williams, Reasoning with Statistics, 128.

<sup>9</sup>Frederick B. Davis, Educational Measurements and Their Interpretation (Belmont, CA: Wadsworth, 1964), 24.

<sup>10</sup>Williams, Reasoning with Statistics, 162. See also Jae-On Kim and Charles W. Mueller, Factor Analysis: Statistical Methods and Practical Issues (Beverly Hills, CA: Sage, 1978), and Jae-On Kim and Charles W. Mueller, Introduction to Factor Analysis: What It Is and How to do It (Beverly Hills, CA: Sage, 1978).

<sup>11</sup>Kerlinger, Foundations of Behavioral Research, 151.

<sup>12</sup>The selection of .6 as a cutoff is relatively arbitrary, no rules exist for selecting a proper cutoff value. This value seemed useful in terms of its sensitivity. In other words, each factor had values above and below this value; a chosen standard of .8 would have yielded no relationships, while a value of .3 would have yielded so many that interpretation is difficult.

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